PROCEEDINGS

OF THE

MADRAS GOVERNMENT

IN THE

PUBLIC WORKS DEPARTMENT

IRRIGATION BRANCH,

FOR

THE MONTH OF DECEMBER 1884.

Printed by Authority.

MADRAS:
PRINTED BY E. KEYS, AT THE GOVERNMENT PRESS.

18[illegible]4.

INDEX

TO THE

TABLE OF CONTENTS AND TABULAR STATEMENT OF MISCELLANEOUS PROCEEDINGS AND MATTERS OF ROUTINE,

IRRIGATION,

FOR THE MONTH OF DECEMBER 1884.

	—	Page
A		
Anicut across the Pennér at Sangam	Regular.	3
B		
Bhagavunta Row, Shareholder, late Madras Irrigation and Canal Company.—Application from — for payment of interest and capital ...	Regular.	1
Buckingham Canal.—Traffic on —	Regular.	4
Budget Estimate for 1885-86 of Irrigation Revenue	Regular.	4
C		
Chillakur Tank.—Improvements to —	Regular.	3
D		
Dowlaishweram Workshops.—Funds for —	Regular.	3
Damages in the South Arcot District	Routine.	3
E		
Errata in G.O., No. 970 I., dated 29th October 1884	Regular.	2
English leather belting supplied to the Sangam Project Division ...	Regular.	3
Erratum in G.O., No. 1076 I., dated 27th November 1884	Routine.	2
Expenditure on Minor Irrigation Works and Petty Construction and Repairs during 1883-84	Routine.	3
F		
Funds.—Certain transfer of —	Regular.	1
Funds.—Certain transfer of —	Regular.	2
Funds.—Certain transfer of —	Regular.	2

	—	Page
Funds.—Certain transfer of —	Regular.	3
Funds allotted for repair works	Regular.	4
Funds.—Certain modifications of —	Regular.	4
G		
H		
Hand-dreger for the Chilka Lake Canal	Regular.	3
I		
Irrigation Works.—Financial results of — for 1883-84	Regular.	2
Irrigation and Agricultural Works in the VI Circle.—Funds for repair of damages to —	Regular.	3
Irrigation Revenue.—Revised Estimate for 1884-85 and Budget Estimate for 1885-86 of —	Regular.	4
Irrigation Works in the Chingleput District.—Repair of —	Regular.	4
Irrigation Works.—Expenditure on — up to July 1884	Routine.	1
Irrigation Works, Trichinopoly District.—Funds for repair of — ...	Routine.	2
J		
K		
Kuchapuram Tank, Anantapur District.—Funds for repair of — ...	Routine.	1
Koratur Tank.—Water-supply from — for the town of Madras ..	Routine.	2
L		
Land acquired for channel works in Negapatam Taluk	Regular.	2
M		
Madras Irrigation and Canal Company, Limited (late).—Address of official liquidator of the — asked for	Regular.	1
Minor Irrigation Works.—Expenditure on — up to August 1884 ..	Routine.	1
Minor Irrigation Works.—Expenditure on — up to July 1884 ..	Routine.	1
Minor Irrigation Works, Nellore District.—List of — requiring repairs in 1885-86	Routine.	1
Minor Irrigation Works, Tanjore District.—Funds for up-keep of — ..	Routine.	1
Minor Irrigation Works, Salem District.—Funds for repair of — ...	Routine.	1
Minor Irrigation Works, Anantapur District.—Regarding — ...	Routine.	1
Minor Irrigation Works, Bellary District.—List of — requiring repairs in 1885-86	Routine.	2

	—	Page
Minor Irrigation Works, Tinnevelly District.—List of — requiring repairs in 1885-86	Routine.	2
Minor Irrigation Works, Kistna District.—List of — requiring repairs in 1885-86	Routine.	2
Minor Irrigation Works, Vizagapatam District.—List of — requiring repairs in 1885-86	Routine.	2
Minor Irrigation Works, Kurnool District.—List of — requiring repairs in 1885-86	Routine.	2
Minor Irrigation Works, Anantapur District.—List of — requiring repairs in 1885-86	Routine.	2
Minor Irrigation Works, North Arcot District.—List of — requiring repairs in 1885-86	Routine.	2
Minor Irrigation Works, Madura District.—List of — requiring repairs in 1885-86	Routine.	2
Minor Irrigation Works, Coimbatore District.—List of — requiring repairs in 1885-86	Routine.	3
Minor Irrigation Works.—Expenditure on —	Routine.	3
Minor Irrigation Works.—Reports regarding contracts for repair of —	Routine.	3
N		
O		
Objectionable Item Statement, IV Circle, for September 1884	Routine.	3
Objectionable Item Statement, V Circle, for September 1884	Routine.	3
Objectionable Item Statement, VI Circle, for September 1884	Routine.	3
Objectionable Item Statement, III Circle, for September 1884	Routine.	3
P		
Productive Public Works.—Return of Capital expenditure on — for half-year ended 30th September 1884...	Regular.	1
Perumal Tank, South Arcot District.—Breaching of —	Regular.	2
Pennathur Tank.—Improvement of —	Regular.	2
Pelandorai Anicut.—Breaching of —	Regular.	4
Q		
R		
Red Hills Tank.—Daily report of works at —	Regular.	1
Red Hills Tank.—Daily report of works at —	Regular.	1
Red Hills Tank.—Daily report of works at —	Regular.	1
Red Hills Tank.—Daily report of works at —	Regular.	2

	—	Page
Red Hills Tank.—Daily report of works at —	Regular.	2
Ramasetera Channel from Narsápur Canal, Godávari	Regular.	3
Revised Estimate for 1884-85 of Irrigation Revenue	Regular.	4
Red Hills Tank.—Daily report of works at —	Routine.	1
Red Hills Tank.—Daily report of works at —	Routine.	1
Red Hills Tank.—Report on breaching of —	Routine.	2
Red Hills Tank.—Relief operations at the —	Routine.	2
Red Hills Tank.—Relief operations at the —	Routine.	2
S		
Steam launch for the Kistna Delta	Regular.	2
Staff boats for the Buckingham Canal Division	Regular.	3
Spur Tank.—Condition of —	Routine.	3
T		
Tools and Plant for the Godávari Western Division	Regular.	2
Támbraparni old left flood bank.—Maintenance of —	Regular.	2
Tanks in Bellary District.—Funds for repair of —	Routine.	1
Tank beds.—Adjustment of sale-proceeds of —	Routine.	2
Tanks, &c., in the Chingleput District.—Repair of —	Routine.	3
Tanks, &c., in the Chingleput District.—Repair of —	Routine.	3
U		
V		
Vyasurpady Tank.—Condition of —	Regular.	2
Varigonda Tank.—Compensation for damages caused by —	Regular.	3
Velocity Diagrams.—Copies of —	Regular.	4
Vyasurpady Tank.—Condition of —	Routine.	3
Veeranam Tank.—Erratum in G.O., No. 1076 I., of 27th November 1884, regarding —	Routine.	2
W		
X		
Y		
Z		

GOVERNMENT OF MADRAS,

PUBLIC WORKS DEPARTMENT.

TABLE OF CONTENTS,

IRRIGATION,

FOR THE MONTH OF DECEMBER 1884.

1 Subjects.	2 Dates of Proceedings.	3 Date of Report to Secretary of State for India.	4 Numbers and Dates of previous Proceedings.
The late Madras Irrigation and Canal Company. Daversoo Bhagavunta Row, a shareholder, informed that the Home Government has been asked for certain information, and, on its receipt, a reply will be sent to his petition regarding payment of interest and capital.	1884. 1st Dec. No. 1089 I.	...	4th October 1882, No. 692 I. 4th December 1882, No. 983 I. 10th March 1883, No 226 I. 6th April 1883, No. 310 I. 21st April 1883, No. 343 I. 9th June 1883, No. 458 I. 31st July 1883, No. 596 I. 5th September 1883, No. 733 I. 5th December 1883, No. 993 I.
Productive Public Works.—Return of capital expenditure on — (Irrigation and Navigation) for the half-year ended 30th September 1884.	3rd Dec. No. 1092 I.	...	2nd September 1884, No. 799 I.
Red Hills Tank.—Daily report of work at the — on the 30th November, recorded.	3rd Dec. No. 1093 I.	...	......
Funds.—Certain transfer of — in the II Circle, sanctioned.	3rd Dec. No. 1094 I.	...	16th October 1876, No. 2768. 1st August 1876, No. 1946. 14th October 1875, No. 2935. 21st September 1875, No. 2741.
Red Hills Tank.—Daily report of work at the — on the 2nd December, recorded.	5th Dec. No. 1096 I.	...	......
Red Hills Tank.—Daily report of work at the — on the 1st December, recorded.	5th Dec. No. 1097 I.	...	......

1 Subjects.	2 Dates of Proceedings.	3 Date of Report to Secretary of State for India.	4 Numbers and Dates of previous Proceedings.
Errata in G.O., No. 970 I., dated 29th October 1884, regarding funds.	1884. 5th Dec. No. 1098 I.	...	......
Land.—Orders for the acquisition of certain — required for improvements to the drainage channel and its bank in the Negapatam taluk, Tanjore district.	6th Dec. No. 1102 I.	...	......
Tools and Plant for the Godávari Western Division.—The Examiner, Public Works Accounts, authorised to pass the excess outlay incurred in 1883-84 over the estimate sanctioned for —.	6th Dec. No. 1104 I.	...	17th September 1884, No. 847 I.
Pennathur Tank.—The excavation of a supply channel to the — from the Thuringilar river deemed undesirable, and plans and estimates for the improvement of the tank ordered to be prepared.	8th Dec. No. 1105 I.	...	......
Red Hills Tank.—Daily report of work at the — on 3rd December, recorded.	8th Dec. No. 1106 I.		
Perumal Tank, South Arcot District.—Report regarding breaching of the —, recorded.	8th Dec. No. 1107 I.	...	5th November 1874, No. 3143. 21st November 1884, No. 1049 I. 24th November 1884, No. 1054 I.
Támbraparni old left Flood Bank.—Orders on correspondence on the subject of maintaining the —.	8th Dec. No. 1108 I.	...	12th October 1882, No. 806 I. 12th September 1884, No. 833 I.
Vyasurpady Tank.—Letter from the Superintending Engineer, V Circle, reporting no time was lost in strengthening the bund of the —, recorded.	9th Dec. No. 1109 I.	...	29th November 1884, No. 1087 I.
Red Hills Tank.—Daily report of work at the — on the 4th December, recorded.	10th Dec. No. 1111 I.	...	......
Steam launch for the Kistna Delta.—Plan and estimate for a — to be constructed at the Government Dockyard at Kidderpore, sanctioned.	12th Dec. No. 1123 I.	...	4th February 1879, No. 76 I. 12th January 1881, No. 30 I. 20th June 1884, No. 580 I. 23rd October 1884, No. 815 E.
The Government of India addressed on the subject.	12th Dec. No. 1124 I.	...	......
Funds.—Certain transfer of —, sanctioned ...	12th Dec. No. 1125 I.	...	31st March 1884, No. 362 I.
Irrigation Works.—Ordered that the Government of India be informed that the tables showing the financial results of — for 1883-84 are printed in G.O., No. 941 I., of 20th October 1884, forwarded with letter, No. 942 I., of same date.	13th Dec. No. 1127 I.	...	13th October 1883, No. 821 I. 16th December 1881, No 865 I.
The Government of India addressed on the subject.	13th Dec. No. 1128 I.	...	......

1 Subjects.	2 Dates of Proceedings.	3 Date of Report to Secretary of State for India.	4 Numbers and Dates of previous Proceedings.
Irrigation and Agricultural Works in the VI Circle.—Superintending Engineer to submit a report on the damages to — and the cost of repairing them, and certain transfers of funds sanctioned.	1884. 16th Dec. No. 1134 I.	...	......
Funds.—Certain transfers of — sanctioned ...	16th Dec. No. 1135 I.	...	28th April 1884, No. 1058 W.
Ramasetwa Channel from Narsápur Canal, Godávari Western Delta.—Estimates for excavating —, and constructing a head-sluice to it, sanctioned.	17th Dec. No. 1136 I.	...	21st March 1882, No. 259 I.
Varigonda Tank.—Payment of compensation for loss of produce on land submerged by the water spread of the —, sanctioned.	17th Dec. No. 1137 I.	...	7th November 1881, No. 759 I. 28th October 1884, No. 962 I.
Anicut across the Pennér at Sangam.—Revised estimate for an —, sanctioned.	17th Dec. No. 1138 I.	...	19th February 1884, No. 205 I. 30th March 1884, No. 274 I. 15th June 1882, No. 471 I. 28th July 1881, No. 467 I. 21st March 1884, No. 321 I.
Chillakur Tank.—Revised estimates for improving the — sanctioned.	19th Dec. No. 1144 I.	...	17th January 1884, No. 45 I.
Staff Boats.—Estimates for — for use of subdivisional officers of the Buckingham Canal division, sanctioned.	19th Dec. No. 1145 I.	...	25th March 1884, No. 814 W. 18th August 1884, No. 2036 W.
Dowlaishweram Workshops.—The Examiner of Public Works Accounts to pass the application for Rs. 10,000 for expenditure during January 1885.	19th Dec. No. 1146 I.	...	24th November 1884, No. 1056 I.
Hand Dredger for the Chilka Lake Canal.—Estimate for a — sanctioned.	20th Dec. No. 1147 I.	...	16th December 1882, No. 1014 I. 24th March 1884, No. 329 I. 27th October 1884, No. 2634 W. 20th August 1884, No. 2040 W. 6th August 1884, No. $\frac{719 \text{ I.}}{\text{A.}}$
English Leather Belting.—Report of the Superintending Engineer, II Circle, regarding the — supplied to the Sangam Project division, recorded.	20th Dec. No. 1148 I.	...	19th November 1884, No. 1041 I.

1 Subjects.	2 Dates of Proceedings.	3 Date of Report to Secretary of State for India.	4 Numbers and Dates of previous Proceedings.
Velocity Diagrams.—Letter from the Government of India stating that application for Kennedy's — should be made to the Principal, Thomason College, for copies of —, recorded.	1884. 20th Dec. No. 1149 I.	...	20th October 1884, Nos. 943-44 I.
Buckingham Canal.—Orders on note by the Chief Engineer for Irrigation on letter from the Superintending Engineer regarding traffic on the —.	20th Dec. No. 1153 I.	...	7th January 1884, No. 10 I. 9th February 1884, No. 160 I. 18th February 1884, No. 200 I. 10th March 1884, No. 267 I.
Funds.—Certain transfers of — sanctioned ...	22nd Dec. No. 1154 I.	...	......
The Government of India asked to sanction an additional allotment of Rs. 1,24,000 under "44. Irrigation and Navigation."	22nd Dec. No. 1155 I.	...	......
Irrigation Revenue.—Revised estimate for 1884-85 and budget estimate for 1885-86 of — submitted by the Director of Revenue Settlement and Agriculture, approved.	27th Dec. No. 1160 I.	...	......
Funds.—Orders on statement of modifications of allotments.	29th Dec. No. 1161 I.	...	29th October 1884, No. 970 I. 25th September 1884, No. 874 I. 13th December 1884, No. 3064 W.
The Government of India requested to sanction certain modification of allotments.	29th Dec. No. 1162 I.	...	......
Pelandorai Anicut—Orders on telegram from the Executive Engineer, South Arcot Division, reporting breaching of the —.	29th Dec. No. 1162 I./A.	...	10th May 1884, No. 474 I. 21st November 1884, No. 1049 I. 24th November 1884, No. 1054 I. 27th November 1884, No. 1076 I. 8th December 1884, No. 1107 I.
Funds allotted for repairing the Chembrambakam tank, &c.	30th Dec. No. 1163 I.	...	22nd December 1884, No. 1154 I.
Irrigation Works in the Chingleput District.—Superintending Engineer instructed to report on the measures necessary to repair certain —.	30th Dec. No. 1164 I.	...	......

IRRIGATION DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT,

FOR THE MONTH OF DECEMBER 1884.

Irrigation.
Establishment.

READ—the following paper :—

From Daversoo Bhagavunta Row, pensioned Amildar, Mysore Province, now residing in Masulipatam, dated 3rd November 1884.

ORDER—dated 1st December 1884, No. 1089 I., Public Works.

Ordered that the Secretary of State be addressed on the subject.

2. The petitioner will, in the meanwhile, be informed that a reply to his petition will be sent on receipt of information applied for from the Secretary of State.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Chief Engineer for Irrigation.
„ Petitioner.

IRRIGATION.
ESTABLISHMENT.

Govt: of {1884} Madras.

PUBLIC WORKS.

Dated December, 1st.

Recd. *Encl.*

G.O., 1st Dec. 1884, No. 1089 I.

DECEMBER.

The late Madras Irrigation and Canal Company

Daversoo Bhagavunta Row, a shareholder, informed that the Home Government has been asked for certain information, and on its receipt a reply will be sent to his petition regarding payment of interest and capital.

PUBLIC WORKS DEPARTMENT.

Letter—to

The Right Honorable the SECRETARY of STATE for INDIA.

My Lord,

We have the honor to request that your Lordship will be so good as to furnish us with the correct address of the Liquidator in England to whom the shareholders, in India, of the late Madras Irrigation and Canal Company should submit their applications for payment of the stock value of their shares together with the guaranteed interest due thereon, as it is necessary that the Liquidator's address should be officially published for the information of the Indian shareholders.

We have the honor to be,
My Lord,
Your Lordship's most obedient, humble servants,

(Signed) M. E. GRANT DUFF.
(„) FRED. ROBERTS.
(„) H. E. SULLIVAN.
(„) C. G. MASTER.

(True Copy.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

Fort St. George,
1st December 1884.

GOVT. OF MADRAS.

PUBLIC WORKS DEPARTMENT.

(Copy.)

LETTER to the Right Honorable the Secretary of State for India.

No. $\frac{24}{1089\ \text{I.}}$, dated 1st Dec. 1884.

Requesting to be informed of the correct address of the Liquidator of the late Madras Irrigation and Canal Company.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following paper :—

RETURN of Capital Expenditure on Productive Public Works of Irrigation and Navigation for and up to the end of the half-year ended 30th September 1884.

Systems.	Outlay during the half-year. Ordinary.	Outlay during the half-year. Productive Public Works.	Outlay during the half-year. Contribution.	Outlay during the half-year. Total.	Outlay to end of the half-year. Ordinary.	Outlay to end of the half-year. Productive Public Works.	Outlay to end of the half-year. Contribution.	Outlay to end of the half-year. Total.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Godávari Delta System—								
Works	..	1,45,587	..	1,45,587	..	71,58,739	..	71,58,739
Establishment	..	33,034	..	33,034	..	17,70,968	..	17,70,968
Tools and Plant	..	1,615	..	1,615	..	8,87,971	..	8,87,971
Suspense	..	..	..	..	..	31,025	..	31,025
Total ..	..	1,80,236	..	1,80,236	..	98,48,703	..	98,48,703
Less receipt on Capital Account.	..	..	..	..	..	663	..	663
Net Total ..	..	1,80,236	..	1,80,236	..	98,48,040	..	98,48,040
Cauvery Delta System—								
Works	..	59,621	..	59,621	..	9,49,092	..	9,49,092
Establishment	..	13,712	..	13,712	..	2,30,992	..	2,30,992
Tools and Plant	..	527	..	527	..	47,122	..	47,122
Suspense	..	..	..	..	..	24,957	..	24,957
Total ..	..	73,860	..	73,860	..	12,52,163	..	12,52,163
Less receipts on Capital Account.	..	49	..	49	..	126	..	126
Net Total ..	..	73,811	..	73,811	..	12,52,037	..	12,52,037
Kistna Delta System—								
Works	..	1,42,503	..	1,42,503	..	48,39,319	..	48,39,319
Establishment	..	32,403	..	32,403	..	12,08,091	..	12,08,091
Tools and Plant	..	27,115	..	27,115	..	3,74,672	..	3,74,672
Suspense	..	..	..	..	..	55,315	..	55,315
Total ..	..	2,02,021	..	2,02,021	..	64,77,397	..	64,77,397
Less receipt on Capital Account.	..	21	..	21	..	6,249	..	6,249
Net Total ..	..	2,02,000	..	2,02,000	..	64,71,148	..	64,71,148
Pennér Anicut System—								
Works	..	..	..	..	..	11,14,339	..	11,14,339
Establishment	..	..	..	..	..	2,78,585	..	2,78,585
Tools and Plant	..	..	..	..	..	27,858	..	27,858
Suspense	..	..	..	..	..	8,081	..	8,081
Total ..	..	..	..	..	..	14,28,863	..	14,28,863
Less receipt on Capital Account.	..	..	..	..	..	1	..	1
Net Total ..	..	..	..	..	..	14,28,862	..	14,28,862
Srívaikuntham Anicut System—								
Works	..	4,740	..	4,740	..	10,06,555	..	10,06,555
Establishment	..	1,018	..	1,018	..	2,80,382	..	2,80,382
Tools and Plant	..	..	..	..	..	10,530	..	10,530
Suspense	..	..	..	..	..	..	..	..
Total ..	..	5,758	..	5,758	..	12,97,467	..	12,97,467
Less receipt on Capital Account.	..	..	..	..	..	240	..	240
Net Total ..	..	5,758	..	5,758	..	12,97,227	..	12,97,227

Return of Capital Expenditure on Productive Public Works of Irrigation, &c.—*cont.*

Systems.	Outlay during the half-year.				Outlay to end of the half-year.			
	Ordinary.	Productive Public Works.	Contribution.	Total.	Ordinary.	Productive Public Works.	Contribution.	Total.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Sangam Anicut Project—								
Works	..	2,50,537	..	2,50,537	..	12,79,034	..	12,79,034
Establishment	..	56,448	..	56,448	..	2,76,253	..	2,76,253
Tools and Plant	..	8,240	..	8,240	..	1,10,244	..	1,10,244
Suspense	..	..	..	..	..	..	..	..
Total ..	..	3,15,225	..	3,15,225	..	16,65,531	..	16,65,531
Less receipts on Capital Account.	..	..	..	..	..	..	..	..
Net Total ..	..	3,15,225	..	3,15,225	..	16,65,531	..	16,65,531
Kurnool Canal—								
Works	..	..	..	..	..	1,77,53,679	..	1,77,53,679
Establishment	..	..	..	..	..	..	..	..
Tools and Plant	..	..	..	..	..	..	..	..
Suspense	..	..	..	..	..	..	..	..
Total ..	..	..	..	..	..	1,77,53,679	..	1,77,53,679
Less receipts on Capital Account.	..	61,147	..	61,147	..	1,83,114	..	1,83,114
Net Total ..	..	**−61,147**	..	**−61,147**	..	1,75,70,565	..	1,75,70,565
Barur Project—								
Works	..	23,452	..	23,452	..	1,12,813	..	1,12,813
Establishment	..	5,348	..	5,348	..	26,784	..	26,784
Tools and Plant	..	..	..	..	..	2,058	..	2,058
Suspense	..	..	..	..	..	..	..	..
Total ..	..	28,800	..	28,800	..	1,41,655	..	1,41,655
Less receipts on Capital Account.	..	..	..	..	..	..	..	..
Net Total ..	..	28,800	..	28,800	..	1,41,655	..	1,41,655
Abstract of all Projects—								
Works	..	6,26,440	..	6,26,440	..	3,42,13,570	..	3,42,13,570
Establishment	..	1,41,963	..	1,41,963	..	40,72,055	..	40,72,055
Tools and Plant	..	37,497	..	37,497	..	14,60,455	..	14,60,455
Suspense	..	..	..	..	..	1,19,378	..	1,19,378
Total ..	..	8,05,900	..	8,05,900	..	3,98,65,458	..	3,98,65,458
Less receipts on Capital Account.	..	61,217	..	61,217	..	1,90,393	..	1,90,393
Net Total ..	..	7,44,683	..	7,44,683	..	3,96,75,065	..	3,96,75,065

Madras,
28th November 1884.

(Signed) D. C. GORDON,
Examiner, Public Works Accounts.

No. 153 A.

Forwarded to the Accountant-General, Public Works Department, in *duplicate*, with reference to Government of India Circular No. XXIII of 1880.

28th November 1884.

(Signed) D. C. GORDON,
Examiner, Public Works Accounts.

No. 9 I.

Copy forwarded to the Joint Secretary to Government, Public Works Department, Irrigation Branch.

28th November 1884.

(Signed) D. C. GORDON,
Examiner, Public Works Accounts.

Order—dated 3rd December 1884, No. 1092 I., Public Works.

Communicated to the officers concerned in continuation of G.O., No. 799 I., dated 2nd September 1884.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, I Circle.
" " " II "
" " " III "
" " " IV "
" " " VI "
" Chief Engineer for Irrigation.
" Revenue Department.

IRRIGATION.
ACCOUNT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 3rd.

Recd. *Encl.*

G.O., 3rd Dec. 1884, No. 1092 I.

DECEMBER.

Productive Public Works

Return of capital expenditure on — (Irrigation and Navigation) for the half-year ended 30th September 1884.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

READ—the following paper :—

Daily Report of Red Hills Tank.

Saturday, 29th November.—Number of coolies employed 1,400.

2. Two hundred feet of ring bund completed at north end, two hundred and forty at south end, and ninety-five feet in the centre, the latter portion having been started so as to give four faces to work from instead of only two.

3. Work at the Cholaveram tank will be begun on Monday.

MADRAS,
30th November 1884.

(Signed) J. PENNYCUICK, Lieut.-Col., R.E.,
Superintendent of Works.

ORDER—dated 3rd December 1884, No. 1093 I., Public Works.

Recorded.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Chief Engineer for Irrigation.
,, Superintending Engineer, V Circle.
To Lieutenant-Colonel Pennycuick, R.E.
To the Revenue Department.
,, Financial ,,

IRRIGATION.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 3rd.

Recd. *Encl.*

G.O., 3rd Dec. 1884, No. 1093 I.

DECEMBER.

Red Hills Tank

Daily report of work at the — on 30th November, recorded.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following letter from J. W. RUNDALL, Esq., Superintending Engineer, II Circle, to the Chief Engineer for Irrigation, dated Masulipatam, 17th November 1884, No. 722 N.L. :—

I have the honor to inform you that compensation bills, amounting to Rs. 2,453, for land required for the " Pennér right embankment, from Pennér anicut to the sea, " have been received duly verified by the Executive Engineer, Nellore division.

2. The estimate for this work, amounting to Rs. 61,450, was sanctioned in G.O., No. 1946, of the 1st August 1876. The expenditure to date is Rs. 57,144-6-11. The above estimate contains a provision for land of Rs. 4,500, against which only Rs. 346-1-0 has been charged up to date.

3. I request, therefore, you will be good enough to allot the sum of Rs. 2,453 from the grant for Kistna river left bank below anicut, budget item No. 37 in the Kistna Eastern division, to enable these bills to be paid this year.

4. As already stated work on the Kistna left bank cannot be proceeded with till the bank canal section is finally determined.

ORDER—dated 3rd December 1884, No. 1094 I., Public Works.

The following transfer of funds is sanctioned :—

H. Public Works not classed as Productive.
Agricultural Original Works.
River Embankments.

From	RS.	*To*	RS.
Kistna Eastern Division— Kistna left bank below anicut, budget item No. 37	2,453	Nellore division— Pennér right embankment from Pennér anicut to the sea ...	2,453

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, II Circle.
" Chief Engineer for Irrigation.
" Examiner, Public Works Accounts.
" Revenue Department.

IRRIGATION.
ACCOUNT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 3rd.

Recd. *Encl.*

G.O., 3rd Dec. 1884, No. 1094 I.

DECEMBER.

Funds

Orders sanctioning certain transfer of — in the II Circle.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

Read—the following paper:—

Daily Report of Red Hills Tank.

Good progress is being made with the ring bund, which has been carried completely across the gap, and the exit of water from the tank is now stopped except for a little leakage which will be stopped immediately. The bund will be completed, as already stated, up to 23·00 above M.S.L. (six feet above the lowest part of its course) by Friday evening.

The Deevali feast, which is not yet over, still keeps away a good many laborers, but we have 1,200 on the work, and a gang of nearly 1,000 strong are expected to-morrow.

One hundred and seventy-one tents have been received and are being pitched.

Red Hills,
2nd December 1884.

(Signed) J. PENNYCUICK, Lt.-Col., R.E.,
Superintendent of Works.

Order—dated 5th December 1884, No. 1096 I., Public Works.

Recorded.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, V Circle.
,, Chief Engineer for Irrigation.
To Lieutenant-Colonel Pennycuick, R.E.
To the Revenue Department.
,, Financial ,,

IRRIGATION.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 5th.

Recd. *Encl.*

G.O., 5th Dec. 1884, No. 1096 I.

DECEMBER.

Red Hills Tank

Daily report of work at the — on the 2nd December, recorded.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

Read—the following paper :—

Daily Report of Red Hills Tank.

Very little work has been done to-day, the Devali feast having kept away all the laborers, except about three hundred, who have been chiefly employed on the central portion of the ring bund, of which a length of three hundred feet has been done, though not quite to its full width.

2. The lower portion of the ring bund will probably be completed throughout its length by Friday or Saturday.

3. Enclosed is a copy of a statement received from the Deputy Collector (Mr. Pinto) regarding the loss of life, &c. It will be seen that the total number of lives lost is now stated at 53.

4. It is somewhat remarkable that the loss of life should be so much greater in proportion to the destruction of houses in the village of Vadakarai than in Tandulkalani, which was wholly destroyed. In the former case there is one life lost for every six houses injured or destroyed, in the latter only one to eight and-a-half.

Red Hills,
1st December 1884.

(Signed) J. PENNYCUICK, Lt.-Col., R.E.,
Superintendent of Works.

ENCLOSURE.

REPORT showing the loss of life and damage to property by the breaching of the Red Hills Tank on the 21st November 1884.

Number.		Number and name of village.	As existed before the floods. Houses.	As existed before the floods. Population.	Houses. Uninjured.	Houses. Partially injured.	Houses. Totally injured.	Houses. Wholly gone.	Deaths. Adults. Males.	Deaths. Adults. Females.	Deaths. Children. Males.	Deaths. Children. Females.	Deaths. Total.	Cattle lost. Bullocks.	Cattle lost. Cows.	Cattle lost. Buffaloes.	Cattle lost. Calves.	Cattle lost. Sheep and goat.	Cattle lost. Total.	Value of property lost. Tiled houses. Number.	Value of property lost. Tiled houses. Amount.	Value of property lost. Thatched huts. Number.	Value of property lost. Thatched huts. Amount.	Value of property lost. Cattle. Amount.	Value of property lost. Standing crops. Amount.	Value of property lost. Other property. Amount.	Value of property lost. Total. Amount.	Remarks.
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
		1st Circle.																			RS.		RS.	RS.	RS.	RS.	RS.	
1	16	Tandalkalani	61	256	..	1	..	60	2	4	1	..	7	27	19	10	6	3	65	8	2,600	53	835	584	2,100	2,694	8,813	
2	17	Grant Lyon	51	*	2	9	40	..	..	..	..	..	..	3	11	..	..	7	21	22	8,050	27	1,001	154	..	3,836	13,041	
3	15	Vadakarai and its hamlets.	157	*	2	4	132	19	2	9	7	7	25	31	30	14	8	143	226	29	2,735	126	1,072	1,097	2,100	2,931	9,935	
4	18	Alinjivakam	163	*	9	20	117	17	1	3	..	..	4	51	39	42	10	51	193	90	27,000	64	1,280	1,652	..	1,02,056	1,31,988	
5	12	Naravarikupam ..	110	*	23	8	16	63	..	1	..	..	1	12	8	10	3	..	33	20	19,675	67	2,325	356	560	25,000	47,916	
6	14	Attivakam	82	..	6	..	76	..	2	..	1	1	4	9	1	6	..	8	24	15	1,100	61	1,220	206	..	1,000	3,526	
7	10	Palavail	7	42	7	..	..	..	..	..	..	..	..	..	..	..	..	20	20	..	..	..	..	40	..	..	40	
8	11	Turtakariyambottu ..	90	*	25	5	57	3	..	1	..	..	1	5	5	6	2	1	19	5	500	60	600	196	..	857	2,153	
		2nd Circle.																										
9	13	Lyon hamlets	60	..	16	..	..	44	..	..	..	1	1	39	27	17	18	..	101	..	..	44	440	950	600	1,060	3,050	
10	21	Vadapurambakam ..	116	504	11	5	91	9	..	2	..	4	6	56	10	70	14	..	150	21	2,100	84	980	1,738	..	7,000	11,818	
11	20	Settimedu	7	50	3	1	1	2	..	..	..	..	..	15	2	15	..	..	32	..	..	4	72	395	..	2,800	3,267	
12	19	Payesembakam ..	5	20	..	1	1	3	..	2	..	..	2	22	5	1	2	..	30	..	..	5	85	289	..	1,550	1,924	
		3rd Circle.																										
13	9	Velangaduvakam ..	184	1,392	130	53	1	..	..	..	..	..	..	..	13	4	1	..	18	11	132	43	122	177	..	..	431	
14	8	Sirukavur ..	9	68	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
15	6	Tuyambakam	22	170	16	3	3	..	..	..	..	..	..	..	..	..	..	..	..	1	10	5	15	..	..	..	25	
16	7	Senrambakam	38	275	37	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	..	..	..	3	
17	22	Hosapur	41	273	26	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15	55	..	..	..	55	
		4th Circle.																										
18	26	Manali	45	554	38	6	1	..	..	..	..	..	..	..	..	..	..	..	..	1	10	6	26	..	..	30	66	
19	23	Amullaivail	36	210	8	17	11	..	..	1	..	..	1	2	..	..	1	..	3	8	113	20	138	28	16	114	409	
20	24	Vykadu	17	93	8	9	..	..	..	..	..	..	..	..	1	2	..	..	3	..	..	9	37	35	..	20	92	
21	5	Ariyalur	16	95	3	5	8	..	..	..	..	..	..	..	4	16	..	..	20	..	..	13	65	136	..	55	256	
22	4	Kadapakam	64	427	48	12	4	..	..	1	..	..	1	..	1	2	..	..	3	2	40	14	104	28	..	30	202	
		5th Circle.																										
23	25	Elandachery	21	*	20	1	..	..	..	..	..	..	..	..	..	2	..	..	2	..	..	1	4	14	..	..	18	
24	27	Tiruvothyur	1,202	6,704	1,202	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
25	28	Sattankadu	..	3,024	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
26	3	Sadayankupam	33	180	32	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	4	..	..	..	4	
		Total ..	2,637	..	1,681	176	560	220	7	24	9	13	53	272	176	217	65	233	963	233	64,065	723	10,483	8,075	5,376	1,51,033	2,29,032	

NOTE.—In this account the names given in column 2 are those of villages only, which include their several hamlets. In the list submitted with my letter, No. 2, dated 27th November 1884, the name of each separate hamlet was given where the hamlets lay away from one another. In Alinjivakam the information as to loss of life originally obtained was found to be incorrect and has been altered.

* These figures cannot be obtained in the village; should be filled up from the census account.

(Signed) J. PENNYCUICK, Lieut.-Colonel, R.E.,
Superintendent of Works.

(Initialled) A. P.,
Deputy Collector.

ORDER—dated 5th December 1884, No. 1097 I., Public Works.

Recorded with reference to G.O., No. 1064 I., of the 25th November 1884.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, V Circle.
,, Chief Engineer for Irrigation.
,, Lieutenant-Colonel Pennycuick, R.E.
,, Revenue Department.
,, Financial ,,

IRRIGATION.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 5th.

Recd. *Encl.*

G.O., 5th Dec. 1884, No. 1097 I.

DECEMBER.

Red Hills Tank

Daily report of work at the — on the 1st December, recorded.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

Errata in Proceedings of Madras Government, No. 970 I., dated 29th October 1884.

	For	*Read*
	RS.	RS.
Page 4, paragraph 14, line 14	5,000	15,000
„ 5, „ 14, „ 9, after the first statement ...	16,063	15,063
„ 5, „ 14, „ 13 do. do.	2,980	1,980
„ 5, „ 14, „ 15 do. do.	16,063	15,063
„ 7, column 8, Pelandorai Anicut System	15,000	1,500
„ 12, „ 3, last item	3,650	1,418
„ 15, „ 3, item 8	690	310
„ 15, „ 2, „ 7	River Conservancy.	River Embankments.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To Superintending Engineers.
To the Chief Engineer for Irrigation.
„ Examiner, Public Works Accounts.
„ Revenue Department.
„ Superintendent of Works, Tank Maintenance Scheme.

IRRIGATION.

Govt. of 1884 Madras.

PUBLIC WORKS.

Dated December, 5th.

Recd. *Encl.*

G.O., 5th Dec. 1884, No. 1098 I.

DECEMBER.

Funds

Errata in G.O., No. 970 I., of 29th October 1884, regarding —.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

READ—the following letter from J. B. PENNINGTON, Esq., Acting Collector of Tanjore, to the Secretary to Government, Public Works Department, dated Tanjore, 2nd December 1884, No. 6838 :—

I have the honor to report that a piece of land measuring 1 acre and 76¾ cents in Kilappidagai village, Negapatam taluk, is required for the improvement of the drainage channel and its banks of Karappidagai village, and as it is necessary, in order to secure to Government an indefeasible title, to acquire the landunder the provisions of the Land Acquisition Act X of 1870, I herewith forward a draft declaration under section 6 of the Act that it is needed for a public purpose, and request that you will be good enough to order the same to be published in the *Fort St. George Gazette.*

ORDER—dated 6th December 1884, No. 1102 I., Public Works.

Ordered that the notification be published in the *Fort St. George Gazette.*

2. The Collector of Tanjore will take order for the acquisition of the land in accordance with the provisions of Act X of 1870.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, VI Circle.
,, Chief Engineer for Irrigation.
,, Examiner, Public Works Accounts.
,, Revenue Department.

IRRIGATION.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 6th.

Recd. *En...*

G.O., 6th Dec. 1884, No. 1102 I.

DECEMBER.

Land

Orders for the acquisition of certain — required for improvements to the drainage channel and its bank in the Negapatam taluk, Tanjore district.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

Read—the following papers :—

Office Note from the Examiner, Public Works Accounts, dated 3rd October 1884, No. 489 :—

Tools and plant, Godávari western division, 1883-84.

With reference to G.O., No. 847 I., dated 17th September 1884, I beg to annex, hereto, for your information and orders, a comparative statement showing the outlay as actually incurred during 1883-84, with that as sanctioned in the estimate received with the above Government Order, and to state that as the estimate was prepared five months after the outlay was incurred, it is thought it should have been based on actuals.

Enclosure.

Comparative Statement of Estimated and Actual Outlay on Tools and Plant in the Godávari Western Division during 1883-84.

Items.	As per Estimate.			As executed.			Difference.					
							More.			Less.		
	Quantity.	Rate.	Cost.	Quantity.	Rate.	Cost.	Quantity.	Rate.	Cost.	Quantity.	Rate.	Cost.
		RS. A. P.	RS.		RS. A. P.	RS.		RS. A. P.	RS.		RS. A. P.	RS.
Archimedian screws ..	6	160 0 0	960	..	..	..	..	..	..	6	160 0 0	960
Bulls' dredgers ..	10	50 0 0	500	20	51 0 0	1,020	10	1 0 0	520	..	..	..
Mamaties, Europe ..	100	1 4 0	125	..	..	..	..	..	..	100	1 4 0	125
Crowbars with claws..	50	1 0 0	50	..	..	..	..	..	..	50	1 0 0	50
Country mamaties ..	100	1 0 0	100	100	0 15 7	97	..	..	..	..	0 0 5	3
Galvanized buckets ..	25	1 12 0	44	20	1 8 0	30	..	..	..	5	0 4 0	14
Mill stones	6	7 0 0	42	..	..	..	..	..	..	6	7 0 0	42
Anvils	2	..	20	1	3 0 0	3	..	..	..	1	3 0 0	13
Bellows, pairs ..	2	..		1	4 0 0	4	..	..	..	1	4 0 0	
Stone-cutters' chisels .	50	0 8 0	25	2	0 8 0	1	..	..	..	48	..	24
Hammers, sledge ..	50	2 0 0	100	..	..	..	..	..	..	50	2 0 0	100
Iron baskets ..	200	1 0 0	200	250	1 5 1	330	50	0 5 1	130	..	..	..
Sundry articles ..	..	..	284	..	..	..	..	..	..	..	..	284
Country crowbars ..	50	1 0 0	50	..	..	..	..	..	..	50	1 0 0	50
Crowbars	..	..	..	36	1 4 2	45	36	1 4 2	45	..	..	..
Felling axes ..	..	..	..	30	0 15 9	29	30	0 15 9	29	..	..	..
Knives	..	..	..	6	0 9 3	3	6	0 9 3	3	..	..	..
Manilla rope ..	..	..	..	1	79 0 0	79	1	79 0 0	79	..	..	..
Steeled crowbars ..	..	..	..	50	4 3 2	210	50	4 3 2	210	..	..	..
Steel hand hammers ..	..	..	..	50	1 3 8	61	50	1 3 8	61	..	..	..
Best steel hammers ..	..	..	..	20	5 0 6	102	20	5 0 6	102	..	..	..
Bridge-rails, small ..	..	..	..	276	1 13 6	509	276	1 13 6	509	..	..	..
Hammers	..	..	..	2	0 9 0	1	2	0 9 0	1	..	..	..
Tongs	..	..	..	14	1 8 3	21	14	1 8 3	21	..	..	..
Smith hammer ..	..	..	..	1	0 7 0	1	1	0 7 0	1	..	..	..
Masons' square ..	..	..	..	10	1 2 0	11	10	1 2 0	11	..	..	..
Carriage	..	..	..	..	..	56	..	..	56	..	..	..
Net excess	..	..	..	..	..	..	..	..	..	..	113 0 0	..
Total ..	..	..	2,500	..	..	2,613	..	..	1,778	..	..	1,665

Madras,
2nd October 1884.

D. C. GORDON,
Examiner, Public Works Accounts.

No. $\frac{I}{93}$ G.D.

MEMORANDUM.

The Examiner of Public Works Accounts having brought to notice that the estimate for tools and plant purchased in the Godávari western division during 1883-84, received from the Superintending Engineer, I Circle, with his letter, printed in Proceedings of Madras Government, No. 847 I., dated 17th September 1884, does not agree with the accounts rendered to the Examiner as shown in the accompanying statement, the undersigned has the honor to request that the Superintending Engineer will be so good as to explain the cause of the differences as soon as possible.

(Signed) A. S. RUSSELL,
Under Secy. to Govt., P.W.D.,
Irrigation Branch.

7th October 1884.

From J. PAUL, Esq., Executive Engineer, Western Division, Godávari, to the Superintending Engineer, I Circle, dated 6th November 1884, No. 392.

With reference to your No. 1697 G.D., dated 6th October 1884, and No. 1846 G.D., dated 22nd October 1884, I have the honor to state that an estimate for Rs. 2,500 for tools and plant, capital, was submitted to you with this office No. 413 of 19th October 1883.

2. Several of the articles such as bridge-rails, small, Rs. 509, &c., were at first charged to Nakkala outfall sluice "contingencies" for which work these were required, but as this was irregular, they were subsequently charged against this estimate. The sanction of the Superintending Engineer was not (owing to an oversight) applied for.

3. The chief items, as shown in the comparative statement prepared by the Examiner, which differ, are archimedian screws, bulls dredgers, crowbars with claws, hammers, sledge, steeled crowbars, steel hand hammers, best steel hammers, bridge-rails, small. All the other items which differ should have been shown against sundry articles, Rs. 284.

4. Steeled crowbars, steeled hand hammers and best steel hammers were purchased for moving and dressing the large and hard cut-stone used at Nakkala outfall sluice; these were purchased instead of the crowbars with claws and hammers, sledge.

5. The archimedian screws were found subsequently not to be required.

6. Twenty bull dredgers were sent from Sangam through some mistake, instead of ten; the error was not found out till after the bill had been accepted.

7. The bridge-rails, small, were obtained for sinking wells, and were afterwards transferred to tools and plant.

8. The charges were at first all made against Nakkala outfall sluice, and were transferred by me to tools and plant, as, through some misunderstanding, I was under the idea that Rs. 2,500 was sanctioned for tools and plant for this division.

No. 2091 G.D.

Endorsement on the above.

Copy submitted to the Chief Engineer for Irrigation for information with reference to his memorandum, No. $\frac{I}{93}$ G.D., dated 7th October 1884.

2. Under the explanation furnished by the Executive Engineer, Godávari western division, the Chief Engineer will be good enough to obtain the sanction of Government authorising the Examiner to pass the excess outlay, Rs. 113, incurred in the

last official year over the estimate sanctioned in G.O., No. 847 I., dated 17th September 1884.

Dowlaishweram, 24th November 1884.

(Signed) P. MONTGOMERIE, Lieut.-Col., R.E.,
Superintending Engineer, I Circle.

Order—dated 6th December 1884, No. 1104 I., Public Works.

Under the circumstances reported in the foregoing endorsement of the Superintending Engineer, I Circle, the Examiner of Public Works Accounts is authorised to pass the excess outlay, Rs. 113, incurred in 1883-84, over the estimate, amounting to Rs. 2,500, sanctioned in G.O., No. 847 I., dated 17th September 1884, for tools and plant required in the Godávari western division.

2. This sanction is registered as No. 166 I. of 1884-85, and reduces the balance of the lump sum provided for tools and plant in the delta completion estimates to Rs. 73,072.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, I Circle.
„ Chief Engineer for Irrigation.
„ Examiner, Public Works Accounts.

IRRIGATION.
ACCOUNT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 6th.

Recd. *Encl.*

G.O., 6th Dec. 1884, No. 1104 I.

DECEMBER.

Tools and Plant

The Examiner, Public Works Accounts, authorised to pass the excess outlay incurred in 1883-84 over the estimate sanctioned for — for the Godávari western division.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

Read—the following papers:—

Petition from Ramasawmi Aiyar and others, ryots of Pennathur village, South Arcot District, dated 9th September 1884.

Letter from the Superintending Engineer, V Circle, dated 27th November 1884, No. 3309.

Order—dated 8th December 1884, No. 1105 I., Public Works.

The petitioners are informed that the Government do not deem it desirable to excavate a supply channel to the Pennathur tank from the Thuringilar river.

2. Plans and estimates for the improvement of the tank will be prepared, and the work required will be carried out in due course, by the Executive Engineer.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, V Circle.
,, Chief Engineer for Irrigation.
,, Revenue Department.
,, Petitioners.

IRRIGATION.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 8th.

Recd. *Engl.*

G.O., 8th Dec. 1884, No. 1105 I.

DECEMBER.

Pennathur Tank

The excavation of a supply channel to the — from the Thuringilar river deemed undesirable, and plans and estimates for the improvement of the tank ordered to be prepared.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

READ—the following paper :—

Daily Report of Work at Red Hills Tank.

The number of laborers continues to increase, there being now 1,500 at the Red Hills and 200 at the Cholaveram tank, or 1,700 in all.

2. The work progresses in proportion, to-day's being much the best day's work yet done, but calls for no special remark.

3. The tents received from the Ordnance department have been pitched, but it is doubtful whether they will be as useful as was expected, as the coolies, with few exceptions, are unwilling to occupy them. Arrangements are, however, being made for the erection of huts, and no doubt the prejudice against the tents will diminish daily.

RED HILLS,
3rd December 1884.

(Signed) J. PENNYCUICK, Lieut.-Col., R.E.,
Superintendent of Works.

ORDER—dated 8th December 1884, No. 1106 I., Public Works.

Recorded.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, V Circle.
" Chief Engineer for Irrigation.
To Lieutenant-Colonel Pennycuick, R.E.
To the Revenue Department.
" Financial "

IRRIGATION.

Govt. of (1884) Madras.

PUBLIC WORKS.

Dated December, 8th.

Recd. *Encl.*

G.O., 8th Dec. 1884, No. 1106 I.

DECEMBER.

Red Hills Tank

Daily report of work at the — on 3rd December, recorded.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

Read—the following letter from Colonel H. L. PRENDERGAST, R.E., Superintending Engineer, V Circle, to the Chief Engineer for Irrigation, dated Chepâk, 24th November 1884, No. 3259 :—

I have the honor to report that Lieutenant Keenan writes on the 15th instant that he inspected the Perumal tank in South Arcot on the 14th instant, and found that the bund has been breached in nine places, and west end of the southern bund washed away to a length of 400 feet.

"The flood rose rapidly on the afternoon of the 5th instant, and it is believed that by the breaching of the Wallajah tank on the same evening the whole of the damage was caused to the Perumal tank.

"The sluices appear not to have received any damage, but three top sluice stones have been washed out of the calingulah, and both the wings cracked in two places, besides two old cracks which had been repaired have re-opened.

"The wings of the waste weir have also been cracked, that is the rear wall of east wing and both from and rear wall of west wing.

"The flood passed over the top of the wings of the waste weir, and the top of the wings are 6 feet above crest of front body wall.

"I am, however, using rafts to bring across brushwood tied in bundles and 10 feet piles which I intend driving down in front of the breach, and then filling in the brushwood and mud between.

"I have a sufficient quantity of materials now ready, and hope to be able to close both breaches by noon to-morrow."

2. The probable cost of filling the breaches, &c., is roughly estimated at Rs. 6,900.

3. There is a very large quantity of water still in the bed of the tank. Every effort is being made to get the breaches closed.

No. 185 I.

Note by the Chief Engineer for Irrigation.

Submitted for the information of Government.

2. From G.O., No. 1049 I., dated 21st November 1884, it will be observed that the breaching of the Wallajah tank has already been reported. This tank is fed from the Shatiatope anicut in the Vellar river, and passes its surplus into the Perumal tank, which, the Superintending Engineer now reports, has also breached.

3. Both are large and important tanks, and belong to a system for which a continuous record of expenditure is kept. The Wallajah tank has a total ayacut and revenue of acres 5,021 and Rs. 21,997, while the Perumal tank irrigates 3,674 acres and has a revenue of Rs. 16,738.

Chepâk,
1st December 1884.

(Signed) A. S. RUSSELL,
for Chief Engineer for Irrigation.

To the Joint Secretary to Government,
Public Works Department, Irrigation Branch.

ORDER—dated 8th December 1884, No. 1107 I., Public Works.

Recorded in continuation of G.O., No. 1049 I., dated 21st November 1884, and G.O., No. 1054 I., of 24th November 1884.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, V Circle.
" Chief Engineer for Irrigation.
" Examiner, Public Works Accounts.
" Revenue Department.

IRRIGATION.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 8th.

Recd. *Encl.*

G.O., 8th Dec. 1884, No. 1107 I.

DECEMBER.

Perumal Tank, South Arcot Division

Report regarding the breaching of the —, recorded.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

Read—the following papers :—

Proceedings of Government, dated	8th February 1882,	No.	104 I.
Do.	„	20th May „	„	399 I.
Do.	„	12th October „	„	806 I.
Do.	„	12th September „	„	833 I.

No. 962 I.

MEMORANDUM.

The undersigned is directed to forward the following case for legal opinion :—

Case.

G.O., No. 104 I., of 1882.
G.O., No. 399 I., of 1882, and one tracing to be returned.

Owing to it being found that the main cause of the frequent breaching of the flood embankment of the Támbraparni river in the Tinnevelly district was that the old flood banks were much too close together, it was decided by Government in 1881 to abandon the existing flood bank for some distance on one side of the river and to construct a new flood bank on the *land side* of the abandoned embankment, so as to allow the river a greater width of waterway in high floods.

By the adoption of this plan several villages are included between the old flood bank to be abandoned and the new flood bank to be constructed, and will therefore be exposed to risk of inundation during high floods. It must be noted that when the old bank breached, as it invariably did in high floods, the villages were subject to inundation, and a reference to G.O., No. 399 I., dated 20th May 1882, will show that the villages are situated on high ground, and that by the abandonment of the old bank and construction of the new it is anticipated that they will be little worse off than they were in high floods. In moderate floods the low-lying lands might be to some extent flooded, but this would cause little if any damage. By the breaching of the old bank in high floods very considerable damage has been done to irrigation works and considerable loss has resulted to Government.

2. The following is a brief resumé of the facts of the case :—

In reply to petitions representing that, by the abandonment of the old flood bank, certain villages would be brought within the reach of the flood waters of the river, the petitioners were informed (G.O., No. 104 I., of 8th February 1882) that the permanent flood bank to be maintained by Government must be thrown back, but that if they desired to (endeavour to) maintain the old flood bank they could do so at their own expense. The Superintending Engineer was also required to report whether any protection, which the petitioners could legally claim, would be withdrawn by the adoption of the new line for the flood embankment.

3. There being no information whatever on this last point the Government in a subsequent order (G.O., No. 399 I., of 20th May 1882) ruled that, *unless* it could be shown that the construction of the old flood bank induced the first settlement of the villages, there was no obligation on the part of Government to maintain it, and consequently that the retirement of the flood bank did not withdraw from the villages any protection which they could claim.

4. With regard to the point whether the construction of the old flood bank induced the first settlement of the villages the inquiries made up to date have elicited

no definite information, though the probabilities are much in favor of the villages being built long anterior to the construction of the old flood bank.

5. Some years ago, when the embankments of the Kistna river were thrown back under similar circumstances, land was given to the villagers outside the river embankments on which to build, and they were induced to remove their houses without compensation, it being pointed out that the Government were unable to ensure the safety of their lives and property if they continued to live within the river bank. In this case there seems to be little risk to life and property, and the land outside the bank is under wet cultivation, so that there is no available site for the villages within a considerable distance, and a similar course cannot be adopted.

6. A definite legal opinion is required as to whether, if the villagers suffer loss in high floods, after the abandonment of the old bank, any claim for compensation from Government would be admitted in a court of law. A decision that the villages are entitled to compensation would, on the score of the vast amount required for buying up the villages, absolutely prohibit the construction of the new flood bank, which is designed to protect public interests of far greater moment than those of the few villages now under consideration, and it must be remembered that the old bank cannot be made safe against high floods.

CHEPÂK,
27th November 1883.

(Signed) J. O. HASTED, Col., R.E.,
Ag. Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Advocate-General through the Government Solicitor.

Endorsement from Government Solicitor, dated 20th November 1883, No. 621.

No. $\frac{\text{VI}}{\text{48 T.N.}}$

MEMORANDUM.

In G.O., No. 399 I., dated 20th May 1882, it was ordered that the old river bank from Sríyaikuntham anicut for a distance of $7\frac{1}{2}$ miles on the north side of the river was to be left intact and might be maintained by the villagers at their own expense. It is now considered desirable that the actual state of the old bank at the time that it was abandoned by this department should be carefully ascertained and recorded. To this end the undersigned has the honor to request that the Superintending Engineer, VI Circle, will be good enough to have accurate longitudinal and cross sections prepared to show the existing state of the bank, and will submit an estimate of the probable yearly cost of maintaining the bund in this state. Inquiry should also be made regarding the height to which the water rose over the land between the old and new banks when the late very high flood occurred, and a statement should be sent showing as far as can be ascertained by inquiry the extent of damage that was done by the flood, village by village. It would be well also to submit with the sections a sketch plan with levels of the land between the two banks plotted on it and M.F.L. recorded.

The information required should be furnished as early as possible.

5th December 1883.

(Signed) J. O. HASTED, Col., R.E.,
Chief Engineer for Irrigation.

From Lieutenant-Colonel H. R. MEAD, R.E., Superintending Engineer, VI Circle, to the Chief Engineer for Irrigation, dated Kodaikánal, 6th September 1884, No. 334 T.N.

With reference to your memorandum, No. $\frac{\text{VI}}{\text{48 T.N.}}$, dated 5th December 1883, I have the honor to forward, herewith, level sections showing the existing state of the left old flood bank below Srívaikuntham

13 Plans.
1 Estimate.

anicut and cross sections of the ground between the old bank and the new one, or the south bank of the north channel; a sketch plan is also forwarded.

2. On the sections the M.W. levels are shown; I need hardly point out that these M.W.L. are approximate and not actuals except at a few places.

3. With regard to the extent of damage that was done by the flood, village by village, I regret that I am not in a position to give even a rough approximation. I fear that the Revenue Department could not do this; as a matter of course the villagers' statements are misleading exaggerations, and there is nothing to show what was the actual damage.

Should you think it of any use I will address the Collector and ask him to have a statement prepared.

4. An estimate of the probable cost of maintaining the bank is also sent; it amounts to Rs. 700; this would be sufficient in ordinary years, and would not cover the cost of necessary repairs to the bank after extraordinary floods.

From the same officer, dated Trichinopoly, 22nd October 1884, No. 439 T.N.

Statement of compensation.

With reference to paragraph 3 of G.O., No. 833 I., dated 12th September 1884, I have the honor to point out that I have replied as far as I can to your memorandum, No. 48 T.N., of 5th December 1883, in my letter, No. 334 T.N., dated 6th September 1884.

2. With regard to the Collector's rough estimate of compensation I have the honor to remark that there has been already a long correspondence regarding the throwing back of the Támbraparni flood banks; the Collector of Tinnevelly, then Mr. Pennington, considered that Government were bound to keep up the old flood banks or to compensate the owners of land or houses that would be outside (the river side) of the new embankments.

3. In G.O., No. 399 I., dated 20th May 1882, paragraph 3, and G.O., No. 806 I., dated 12th October 1882, Government distinctly lay down that in their opinion the adoption of the channel bank as the flood bank does not withdraw from the villagers any protection which Government are under obligation to maintain, and it follows, therefore, that Government do not consider that any compensation is due to owners of houses or land that are situated outside the new line of bank.

4. Mr. Atkinson, the Collector of Tinnevelly, in his letter, No. 100, dated 21st March 1884, paragraph 4, points out that probably the amount of compensation to be paid will be more than expected, and Mr. Lee-Warner, now Collector, in his No. 189, dated 16th August 1884, forwards a rough statement of what the tahsildar considers may be claimed; this includes the value of temples, houses and lands that will be outside the new bank, or as the Collector calls it is the bed of the river.

5. Mr. Lee-Warner may be correct in his supposition that these large sums will have to be paid, but he gives no reasons, and it is absolutely against what Government have laid down, I suppose after consultation with their law officers.

6. The question is a very simple one and has been settled once by Government; if it is to be re-opened I would urge that it should be decided on its merits.

No. 183 I.

Note by the Chief Engineer for Irrigation.

The contention of the Irrigation Branch throughout the prolonged discussion, regarding the throwing back of the flood embankment of the Támbraparni river above the Srívaikuntham anicut, has all along been that it is a practical impossibility to maintain the old flood bank, owing to the very contracted waterway allowed by it to the river.

2. By giving up the old bank altogether the flood waters of the river will rise gradually, and will not occasion as much damage as was formerly caused whenever the old bank breached. Low-lying lands situated between the old and new embankments will be partially submerged during floods, as such lands commonly are in all countries, but will no longer be exposed to the scouring action which is caused by breaches during high floods.

3. It is practically impossible to assess the extra damage which may be caused to the villages lying between the old and new flood embankments in the event of the old bank not being maintained by Government. It is also impossible to say whether the villages existed prior to the construction of the old bank.

4. It is not pretended that the abandonment of this bank was necessary in the interests of these villages. It is, however, contended that by its abandonment, and by the construction of a new flood bank further back, the villages and their cultivation are little worse off than they were before, that interests of far greater moment are thereby efficiently protected, and that Government is saved the expense of attempting to deal with the impossible.

5. As pointed out in paragraph 5 of the memorandum by the Chief Engineer for Irrigation, No. 962 I., of 27th November 1883, there is no site to which the villages can be transplanted; and the only other practical solutions of the matter are (1) that Government should endeavour to maintain the old bank solely in the interests of these villages, or (2) should abandon it, and investigate, on their merits, the claims for compensation that arise on each occasion of damages being done by floods.

6. Should Government, under the somewhat complicated circumstances of the case, decide that they will, in compliance with the petitions of the villagers, still maintain the old bank, it must be borne in mind that, in addition to the yearly sum of Rs. 700 required for its maintenance, considerable sums will doubtless be required for the repair of the breaches that will inevitably be caused by each great flood passing down the river.

Chepâk, (Signed) A. S. RUSSELL,
24th November 1884. *for* Chief Engineer for Irrigation.

To the Joint Secretary to Government,
Public Works Department, Irrigation Branch.

Order—dated 8th December 1884, No. 1108 I., Public Works.

The Government are of opinion that it is not incumbent upon them to endeavour to maintain the old flood bank, as it cannot be shown that the first settlement of the villages was induced by its construction.

2. Looking, however, to the fact that no land is available outside the new flood bank for the settlement of new villages, His Excellency the Governor is pleased to direct, as a *special case*, that the old flood bank shall be maintained by Government to its former section, in order to give to the villagers the same protection as they formerly enjoyed, and to obviate the possibility of any claims for compensation.

3. The notification and the schedule for a piece of wet land required for the right flood bank in Mela Atur village, received from the Collector of Tinnevelly with letter, No. 189, dated 16th October 1884, printed in Proceedings of Madras Government, No. 833 I., dated 12th September 1884, are approved and will be published in the *Fort St. George Gazette.*

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, VI Circle.
„ Chief Engineer for Irrigation.
„ Revenue Department.
„ Examiner, Public Works Accounts.

IRRIGATION.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 8th.

Recd. *Encl.*

G.O., 8th Dec. 1884, No. 1108 I.

DECEMBER.

Tambraparni Old Left Flood Bank

Orders on correspondence on the subject of maintaining the —.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

READ—the following letter from Colonel H. L. PRENDERGAST, R.E., Superintending Engineer, V Circle, to the Chief Engineer for Irrigation, dated Chepâk, 2nd December 1884, No. 3368 :—

With reference to G.O., No. 1087 I., dated the 29th ultimo, I have the honor to report that there was no time lost in attending to the Vyasurpady tank. The bund of the tank needed strengthening, and the necessary work was completed on the 28th ultimo.

ORDER—dated 9th December 1884, No. 1109 I., Public Works.

Recorded.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, V Circle.
„ Chief Engineer for Irrigation.
„ Revenue Department.

IRRIGATION.

Govt. of {1884} Madras.

PUBLIC WORKS

Dated December, 10th.

Recd. *Encl.*

G.O., 10th Dec. 1884, No. 1111 I.

DECEMBER.

Red Hills Tank

Daily report of work at the — on the 4th December, recorded.

IRRIGATION.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 10th.

Recd. *Encl.*

G.O., 10th Dec. 1884, No. 1111 I.

DECEMBER.

Red Hills Tank

Daily report of work at the — on the 4th December, recorded.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

Read—the following papers :—

From the Secretary to the Government of India, Military (Marine) Department, to the Joint Secretary to the Government of Madras, Public Works Department, Irrigation Branch, dated Simla, 10th October 1884, No. 1133 (Ships—Construction).

In reply to your letter, No. 581 T., dated the 20th June 1884, I am directed to forward, for the information of the Governor in Council, copy of a letter * from the Director of the Indian Marine together with an estimate, amounting to Rs. 10,463, for the construction in the Kidderpore dockyard of a steam launch for the Kistna delta.

* No. 38 T, dated 3rd October 1884.

Enclosure.

Copy of a letter from the Director of the Indian Marine, to the Secretary to the Government of India, Military (Marine) Department, dated 3rd October 1884, No. 38 T.

I forward an estimate, amounting to Rs. 10,463, for the construction of a steam launch in the Kidderpore dockyard of the kind required.

The vessel could be completed in about seven months from date of receiving order.

The cost of conveying the launch to Cocanada will be Rs. 1,600 including Rs. 100 for the hire of a floating steam crane.

The enclosures are returned as requested. I beg I may be furnished with a printed spare copy of the papers.

No. 815 E., Public Works.

Referred to the Superintending Engineer, II Circle, for any remarks he may wish to make.

2. It is understood that the wood-work now estimated for is the deck front and aft, and fender, not the cabins. No awning is required to be supplied by the dockyard.

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

23rd October 1884.

To the Superintending Engineer, II Circle, with papers in original.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following papers :—

From the Secretary to the Government of India, Military (Marine) Department, to the Joint Secretary to the Government of Madras, Public Works Department, Irrigation Branch, dated Simla, 10th October 1884, No. 1133 (Ships—Construction).

In reply to your letter, No. 581 T., dated the 20th June 1884, I am directed to forward, for the information of the Governor in Council, copy of a letter* from the Director of the Indian Marine together with an estimate, amounting to Rs. 10,463, for the construction in the Kidderpore dockyard of a steam launch for the Kistna delta.

* No. 38 T, dated 3rd October 1884.

ENCLOSURE.

Copy of a letter from the Director of the Indian Marine, to the Secretary to the Government of India, Military (Marine) Department, dated 3rd October 1884, No. 38 T.

I forward an estimate, amounting to Rs. 10,463, for the construction of a steam launch in the Kidderpore dockyard of the kind required.

The vessel could be completed in about seven months from date of receiving order.

The cost of conveying the launch to Cocanada will be Rs. 1,600 including Rs. 100 for the hire of a floating steam crane.

The enclosures are returned as requested. I beg I may be furnished with a printed spare copy of the papers.

No. 815 E., Public Works.

Referred to the Superintending Engineer, II Circle, for any remarks he may wish to make.

2. It is understood that the wood-work now estimated for is the deck front and aft, and fender, not the cabins. No awning is required to be supplied by the dockyard.

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

23rd October 1884.

To the Superintending Engineer, II Circle, with papers in original.

From J. W. RUNDALL, Esq., Superintending Engineer, II Circle, to the Chief Engineer for Irrigation, dated Bezváda, 31st October 1884, No. 1975 K.S.

I have the honor to acknowledge the receipt of your memorandum, No. 815 E., of the 23rd instant, forwarding for my remarks the estimate for the new launch required for the Kistna prepared in the Kidderpore dockyard.

No. 1133, of 10th October 1884, from the Government of India, Military (Marine).
Copy of a letter from the Director of Indian Marine.
1 Estimate.
2 Plans.

2. As remarked by you, we do not want an awning supplied, and neither do we want anchors and chains, as we have the chains and anchors belonging to the *Charles Orr*.

3. From the letter, dated the 3rd October, from the Director of the Indian Marine, it is clear that it is intended to send the launch by steamer to Cocanada, and that a floating steam crane is required to put her on board the steamer. It has, of course, to be considered what means there are of unshipping the launch at Cocanada. I hardly suppose there are special appliances at Cocanada, and the vessel which brings the launch down would have to bring the necessary tackle.

4. I conclude the hull will be unfitted with the machinery, which would have to be put together after the arrival of the launch at Bezváda.

5. It would be well that the launch should reach Cocanada in May, so that it might be sent to Bezváda directly the canals open and fitted together, so that it would be available for use during next season's freshes.

6. I note that without awning Rs. 149, anchor and chains Rs. 446, the cost of the launch will be Rs. 9,809.

7. The dockyard estimate and the original plans forwarded with your memorandum under reply are herewith returned.

From A. S. RUSSELL, Esq., Under Secretary to Government, Public Works Department, Irrigation Branch, to the Master Attendant, Madras, dated Chepâk, 27th November 1884, No. 329 M.

It is proposed to have a steam launch * constructed at the Kidderpore dockyard at Calcutta for the Kistna delta and to arrange for her conveyance to Cocanada by one of the coasting steamers. The launch will be shipped at Calcutta by means of a floating crane. I have the honor to request that you will be so good as to inform me whether there are any similar appliances and the necessary tackle available at Cocanada for unshipping the launch.

	FT.	IN.
* Length	60	5
Breadth	9	$2\frac{1}{2}$
Depth at bow	5	$8\frac{1}{2}$
Do. at stern	5	10

From J. H. TAYLOR, Esq., Lieutenant, R.N.R., Master Attendant, Administrative Department, Madras, to the Chief Engineer for Irrigation, dated Madras, 2nd December 1884, No. 11065.

In reply to your letter, No. 329 M., dated 27th November 1884, I have the honor to inform you that there is no floating crane or tackle necessary for unshipping the launch referred to at Cocanada. It will have to be put over the side by the coasting steamer bringing it and towed ashore.

Order—dated 12th December 1884, No. 1123 I., Public Works.

The Government of India in the Military (Marine) Department will be requested to order the construction, at the Government dockyard at Kidderpore, of a steam launch for the Kistna delta. The launch is estimated to cost Rs. 10,463, but this

amount will be reduced to Rs. 9,809 if the items for awning, anchors and chains, which are not required to be provided, are deducted. Including the cost of conveyance to Cocanada the cost will be Rs. 11,409.

2. The estimate is sanctioned as follows :—

G. Productive Public Work.
Revenue Account.
38. Irrigation and Navigation (Working Expenses).
Kistna Delta System.
Eastern Division.
III. Tools and Plant.
9. Navigation Plant.

	RS.
Steam launch, Estimate	11,409

And this is registered as No. 167 I. of 1884-85.

3. Ordered that the following letter be sent :—

(Here enter No. 1124 I., dated 12th December 1884.)

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, II Circle.
" Chief Engineer for Irrigation.
" Examiner, Public Works Accounts.
" Revenue Department.
" Marine "

IRRIGATION.
ACCOUNT.

Govt: of {1884} Madras

PUBLIC WORKS.

Dated December, 12th.

Recd. *Encl.*

G.O., 12th Dec. 1884, No. 1123 I.

DECEMBER.

Steam Launch for the Kistna Delta

Plan and estimate for a — to be constructed at the Government dockyard at Kidderpore, sanctioned.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

Letter—from

Colonel J. O. HASTED, R.E.,

Joint Secretary to the Government of Madras,

Public Works Department, Irrigation Branch,

To

The SECRETARY to the GOVERNMENT of INDIA,

Military (Marine) Department.

Sir,

In acknowledging the receipt of your letter ("Ships—Construction"), No. 1133, dated 10th October 1884, I am directed to forward a copy of Proceedings of Madras Government, No. 1123 I., dated 12th December 1884, and to request that you will be so good as to order the construction, at the Government dockyard, Kidderpore, of a steam launch for the Kistna delta, in accordance with the design forwarded with my letter, No. 581 I., dated 20th June 1884. The plans are herewith resubmitted together with the estimate for reference during the construction of the launch.

I have the honor to be,

Sir,

Your most obedient servant,

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

Chepâk,
12th December 1884.

IRRIGATION.
ACCOUNT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 12th.

Recd. *Encl.*

12th Dec. 1884, No. 1124 I.

DECEMBER.

Steam Launch for the Kistna Delta

Forwarding plans and estimate for a —, and requesting that orders may be issued for its construction in the Government dockyard at Kidderpore.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following letter from J. W. RUNDALL, Esq., Superintending Engineer, II Circle, to the Chief Engineer for Irrigation, dated Bezváda, 24th November 1884, No. 2155 K.S. :—

Referring to your telegram of the 18th instant, and my replies, dated respectively the 19th and 24th instant, I have the honor to inform you that the Executive Engineer, Kistna Eastern division, surrenders Rs. 1,000 under agricultural river embankment, repairs, but the Executive Engineer, Nellore, requires a similar sum to go on with the closing of breach in the 13th mile of the right embankment, for which an estimate of Rs. 22,630 was sanctioned in G.O., No. 362 I., dated 31st March 1884.

Please therefore sanction the necessary transfer.

ORDER—dated 12th December 1884, No. 1125 I., Public Works.

The following transfer of funds is sanctioned :—

Agricultural Works.
Repairs.
River Embankments.

From	RS.	*To*	RS.
Kistna Eastern Division	1,000	Nellore Division	1,000

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, II Circle.
,, Chief Engineer for Irrigation.
,, Examiner, Public Works Accounts.
,, Revenue Department.

IRRIGATION.
ACCOUNT.

Govt. of (1884) Madras.

PUBLIC WORKS.

Dated December, 12th.

Recd. *Encl.*

G.O., 12th Dec. 1884, No. 1125 I.

DECEMBER.

Funds

Certain transfer of — sanctioned.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following letter from Lieutenant-Colonel A. FILGATE, R.E., Deputy Secretary to the Government of India, Public Works Department (Account—Irrigation), to the Secretary to the Government of Madras, Public Works Department, dated Fort William, 2nd December 1884, No. 124 A.I. :—

With reference to Government of India Public Works Department Circular No. XXIII P.W., dated 11th November 1881, and circular letter No. 100 A.I., dated 14th September 1883, I am directed to request the very early submission of the tables I, II and III showing the financial results of irrigation works during the official year 1883-84, which is now overdue.

ORDER—dated 13th December 1884, No. 1127 I., Public Works.

Ordered that the following reply be sent :—

(Here enter No. 1128 I., dated 13th December 1884.)

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

IRRIGATION.
ACCOUNT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 13th.

Recd. *Enc.*

G.O., 13th Dec. 1884, No. 1127 I.

DECEMBER.

Irrigation Works

Ordered that the Government of India be informed that the tables showing the financial results of — for 1883-84 are printed in G.O., No. 941 I., of 20th October 1884, forwarded with letter No. 942 I. of same date.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

Letter—from

Colonel J. O. HASTED, R.E.,
Joint Secretary to the Government of Madras,
Public Works Department,
Irrigation Branch,

To

The SECRETARY to the GOVERNMENT of INDIA,
Public Works Department,
(Irrigation).

Sir,

In reply to your letter, No. 124 A.I., dated 2nd December 1884, I am directed to state that the tables showing the financial results of irrigation works for the year 1883-84 are printed in Proceedings of Madras Government, No. 941 I., dated 20th October 1884, forwarded to you with my letter, No. 942 I., of the same date, which was despatched on the 5th November 1884.

I have the honor to be,
Sir,
Your most obedient servant,

(Signed) J O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

Chepâk,
13th December 1884.

IRRIGATION.
ACCOUNT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 13th.

Recd. *Encl.*

13th Dec. 1884, No. 1128 I.

DECEMBER.

Irrigation Works

Intimating that the tables showing the financial results of — for 1883-84 are printed in G.O., No. 941 I., of 20th October 1884, forwarded with letter No. 942 I. of same date.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

Read—the following papers :—

From Lieutenant-Colonel H. R. MEAD, R.E., Superintending Engineer, VI Circle, to the Chief Engineer, Public Works Department, dated Trichinopoly, 14th November 1884, No. 1239 T.J.

I have the honor to report extraordinary rain on the coast and serious damage to irrigation works in Tinnevelly and Tanjore districts and to some extent in Madura district. As yet the reports I have received are vague, and I am unable to give accurate information as to what has occurred.

2. In Tinnevelly Korampollam tank has, I regret to say, been seriously breached on the 7th. The breaches aggregate to a length of about 300 yards; three of them are in the sites of those of November 1881, and the rough estimate for their repair is Rs. 7,000. As this is the case it will, I fear, be hopeless to attempt to repair them now, so that a crop may be cultivated under the tank and Tuticorin supplied with fresh water. The soil is sandy and bad outside the tank, and the only fair soil obtainable is that in the tank bed. I think, therefore, to repair this tank in a proper and trustworthy manner we shall have to allow it to dry and do the work next January. Throwing up ring bunds round the breaches would probably fail, and they would by holding water in the tank prevent fair soil from being procured for the proper repair of the breaches.

3. There has been great damage in the town of Tuticorin and to the railway near it, but Mr. Larminie, the Executive Engineer (who went there as soon as he heard of the damage), reports that this was not from the water from the breached Korampollam tank. Some minor tanks to the north-west of the town breached, but the rainfall, reported to have been 11 inches in 24 hours, fully accounts for the great damage to the town and railway.

4. No information has been received regarding damage to the Srívaikuntham system, but it is believed that no serious damage has occurred.

There has been heavy rain in the Tinnevelly district and some damage done, but it is thought that nothing serious has occurred.

5. In Madura district there has been very heavy rain, and the Vaigai river has been in extraordinary flood. On the 8th it was (it is believed) $1\frac{1}{2}$ feet higher than the flood of 1877, the highest recorded flood, but tradition says in 1846 the flood was as high as this last one. I am unable to report the damage that has occurred, but I fear that in the Periyakulam valley it must be serious.

The tanks in Ramnad have suffered most seriously.

6. In Tanjore district the whole country, for at least 10 miles from the coast, was, and is now, to a great extent under water.

There are serious breaches in the Vetár, the Verasholam, Nundalar, Iyavianar, and other rivers. The breaches reported in this office letter, No. 1204 T.J., dated 7th November 1884, in Tiruturaipúndi taluk, of course, have mostly re-opened, and the Pamanayar right bank has breached $5\frac{1}{2}$ miles below the head of the river. The rainfall is said to have been registered as 20 inches in 24 hours at Tiruválúr and Nundalar. At Tranquebar 10 inches fell in a day, and 25 inches in 7 days, commencing from the 30th October.

7. In Trichinopoly there has been a heavy rainfall, but, as far as I can learn, it has not been extraordinary, and there has been no serious damage.

8. Funds for the emergent repairs of works will be required, and I request the ollowing may be at once granted :—

	RS.
Tinnevelly Division.—For Srívaikuntham Anicut System—Maintenance and Repairs	10,000
Madura.—Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept	5,000
Agricultural Repairs. River Embankments.	
Tanjore	10,000
Negapatam	8,000

Telegram from the	Superintending	Engineer,	II	Circle,	dated	19th	November 1884,	No.	——.
Do.	do.	do.	III	,,	,,	21st	,,	,,	——.
Do.	do.	do.	IV	,,	,,	24th	,,	,,	——.
Letter from the	do.	do.	V	,,	,,	28th	,,	,,	3338.
Telegram from the	do.	do.	II	,,	,,	29th	,,	,,	——.
Do.	do.	do.	I	,,	,,	7th	December	,,	——.

No. 187 I.

Submitted to Government.

2. The demands made for repairing the damages caused to irrigation and agricultural works in the Tanjore, Madura, and Tinnevelly districts by the recent heavy rains amount to Rs. 33,000 as shown below :—

	RS.
Productive Public Works. Revenue Account. Srívaikuntham Anicut System. Maintenance and Repairs.	
(1) Tinnevelly division	10,000
Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept. Repairs.	
(2) Madura division	5,000
Agricultural Works. Repairs. River Embankments.	
(3) Tanjore division	10,000
(4) Negapatam division	8,000
Total ..	33,000

There being no funds available to meet these demands the Superintending Engineers of other circles were telegraphed to, on 18th ultimo, to report the amounts which could be spared from the grants assigned to their circles. They have all replied however that no funds can be surrendered.

3. Out of the amount of Rs. 8,000, provided in the budget for the steam launch to be constructed at Calcutta for the Kistna delta, the Superintending Engineer, II Circle, has, in his letter No. 236 C., dated 1st December 1884, proposed to re-appropriate Rs. 6,639 to meet other demands under Tools and Plant in the Kistna delta, and has surrendered the balance. As the demand for item No. (1) is of an urgent nature, it is recommended that the whole amount provided for the steam launch be re-appropriated to the Srívaikuntham Anicut System. There are no funds available to meet the balance still required for this system.

4. The Superintending Engineer, VI Circle, has subsequently, in letter No. 1293 T.J., dated 20th November 1884 (which will be disposed of separately), surrendered Rs. 5,000 from the grant for the Trichinopoly division under Irrigation

and Navigation Works for which neither Capital nor Revenue Accounts are kept—Repairs. This amount may be transferred to the Madura division to meet the demand for item No. (2).

5. The demands made for items (3) and (4) are large. As the expenditure, incurred to the end of October 1884 in the divisions (noted in the margin) in the VI Circle under Repairs, River Conservancy and River Embankments, is much below the average, the Superintending Engineer has been requested to report by urgent telegram the amount absolutely required for expenditure during the current year under "44, Irrigation and Navigation," in addition to the existing sanctioned allotments. On receipt of this information an application may, if necessary, be submitted to the Government of India for additional allotments.

	Grant.	Expenditure to end of October 1884.
Agricultural Repairs—	RS.	RS.
River Conservancy—		
Tanjore	17,000	6,911
Trichinopoly ...	7,000	2,207
River Embankments—		
Tanjore	26,858	10,196
Negapatam	15,000	6,897
Tinnevelly	1,000	...

Chepâk,
13th December 1884.

(Signed) A. S. RUSSELL,
for Chief Engineer for Irrigation.

To the Joint Secretary to Government,
Public Works Department, Irrigation Branch.

Order—dated 16th December 1884, No. 1134 I., Public Works.

The Superintending Engineer, VI Circle, will expedite the submission of a full report on the extent of the damages sustained by irrigation and agricultural works in his circle, showing the total cost of repairing them.

2. The following transfers of funds are sanctioned :—

Productive Public Works, Revenue Account.

From		*To*	
Kistna Delta System—	RS.	Srívaikuntham Anicut System—	RS.
Tools and plant	8,000	Maintenance and repairs	6,504
		Establishment	1,496
Total ...	8,000	Total ...	8,000

Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept.

Repairs.

	RS.		RS.
Trichinopoly	5,000	Madura	5,000

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To Superintending Engineers.
To the Chief Engineer for Irrigation.
,, Examiner, Public Works Accounts.
,, Revenue Department.

IRRIGATION.
ACCOUNT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 16th.

Recd. *E[illegible]cl.*

G.O., 16th Dec. 1884, No. 1134

DECEMBER.

Irrigation and Agricultural Works in the VI Circle

Superintending Engineer to submit a report on the damages to — and the cost of repairing them, and certain transfers of funds, sanctioned.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following paper :—

From the Superintending Engineer, IV Circle, dated 29th November 1884, No. 157.

ORDER—dated 16th December 1884, No. 1135 I., Public Works.

The Salem division having been amalgamated with the Coimbatore division, the following unspent balances of the current year's allotments for irrigation and agricultural works in the late Salem division are transferred to the Coimbatore division for expenditure on works in the Salem sub-division :—

Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept.

	RS.
Minor Original Works	532
Repairs	8,573
Total ...	9,105

Agricultural Works.
Minor Original Works.

	RS.
Miscellaneous	42
Repairs—River Conservancy	265
Total ...	307

2. The Examiner of Public Works Accounts will see that the expenditure incurred by the new division on works in the Salem district is recorded separately from that incurred on works situated in the Coimbatore district.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, IV Circle.
,, Chief Engineer for Irrigation.
,, Examiner, Public Works Accounts.
,, Revenue Department.

IRRIGATION.
ACCOUNT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 16th.

Recd. *Encl.*

G.O., 16th Dec. 1884, No. 1135 I.

DECEMBER.

Funds

Certain transfers of — sanctioned.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

Read—the following letter from the Superintending Engineer, I Circle, to the Chief Engineer for Irrigation, dated Dowlaishweram, 4th December 1884, No. 2185, G.D. :—

I have the honor to submit, herewith, for sanction, an estimate (abstract in duplicate), for the work noted in the margin, amounting to Rs. 3,000, and to request that you will be good enough to obtain sanction of Government to the same.

	RS.
Excavating Ramasetuva channel from Narsápur canal and constructing head sluice to the same	3,000

2. The necessity for this work is fully explained in the enclosed copy of letter, No. 339, dated the 14th October 1884, received from the Officer in charge, Godávari western division.

3. This estimate has been countersigned by the Collector of the Godávari district in token of his approval.

No. 190 I.

Submitted to Government with a recommendation that the estimates, amounting to Rs. 3,080, for excavating the Ramasetuva channel from the Narsápur canal, and for constructing a head sluice to the same, be sanctioned from the balance of the lump sum provision for unforeseen works in the completion estimates of the Godávari delta system, as the amount of the estimate exceeds the limit, Rs. 2,500, prescribed for works chargeable to Revenue extensions and improvements.

2. In the last paragraph of letter, No. 339, dated 14th October 1884, from the Executive Engineer, Godávari western division, it is stated that, as the sluice will pass under the Narsápur road, the Local Fund Board will be asked to contribute Rs. 80, which amount is deducted in the estimate, and represents the cost of the extra length of tunnel rendered necessary. As the construction of the new irrigation channel will interfere with an existing right of way, under paragraph 1303 A of the Public Works Code, the Local Fund Board is not liable to contribute towards the construction of the head sluice, and the deduction shown in the estimate for this work has therefore been struck out. Moreover, under paragraph 1643 of the Public Works Code, contributions from Local Funds should not be deducted in Public Works estimates.

Chepâk,
15th December 1884.

(Signed) A. S. RUSSELL,
for Chief Engineer for Irrigation.

To the Joint Secretary to Government,
Public Works Department, Irrigation Branch.

Order—dated 17th December 1884, No. 1136 I., Public Works.

The estimates, amounting to Rs. 3,080, for excavating Ramasetuva channel from Narsápur canal, Godávari western delta, and constructing a head sluice to the same

is sanctioned from the balance of the lump sum provision in the delta completion estimates for unforeseen works, which will then be reduced to Rs. 28,336.

2. This sanction has been registered as No. 168 I. of 1884-85, and classified as shown below:—

N. Productive Public Works.
Capital Account.
51. Irrigation and Navigation.
Godávari Delta System.
I. Works.
Western Section.
Narsápur Canal.
(3) Distributaries.

		RS.
C Works. Head Sluice	... ...	550
L Earthwork. Channel	... ...	2,530
	Total ...	3,080

3. The attention of the Superintending Engineer, I Circle, is drawn to the remarks in paragraph 2 of the foregoing endorsement by the Chief Engineer for Irrigation.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, I Circle, with five enclosures.
,, Chief Engineer for Irrigation.
,, Examiner, Public Works Accounts, with duplicate abstract estimate.
,, Revenue Department.

IRRIGATION.
ACCOUNT.

Govt. of (1884) Madras.

PUBLIC WORKS.

Dated December, 17th.

Recd. *Encl.*

G.O., 17th Dec. 1884, No. 1136 I.

DECEMBER.

Ramasetuva Channel

Estimates for excavating — from Narsápur canal, Godávari western delta, and constructing a head sluice to it, sanctioned.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following paper :—

From J. W. RUNDALL, Esq., Superintending Engineer, II Circle, to the Chief Engineer for Irrigation, dated 1st December 1884, No. 238 C.

I have the honor to forward, herewith, a letter * from the Executive Engineer, Nellore division, forwarding a compensation bill for Rs. 3,151 for loss of produce on certain lands in Vaniletipad, Nellore taluk, owing to the land being submerged by the Varigonda tank supplied by the Jaffer Saib's canal of the Pennér system.

* Copy of letter, No. 280, of 22nd November 1884.

2. The Executive Engineer reports that the amount has been determined by the Collector of Nellore in compromise of a suit brought in the local court for about Rs. 20,000.

3. The fact of the suit having been brought, or of the claim having been made, or of its being likely that we should have any sum to pay on this account was never brought to my notice ; otherwise I should have seen that due provision for any such payment was made in the completion estimate for the Pennér anicut system sent up last March and recently sent on to the Government of India.

4. As the necessary provision was not made I conclude the charge must be made from the provision for unforeseen works.

5. The Executive Engineer is wrong in supposing that the sum, which amounts to over Rs. 2,500, can be charged to extensions and improvements. He points out that the amount was payable on the 30th September, but the Collector's bill is dated only the 19th November.

6. I send on the application at once in hopes that when compiling the final statements for the budget of 1884-85 you will be able to arrange for the money being allotted and will give me instructions as to how the charge should be exhibited pending sanction to the completion estimates.

7. I have asked the Executive Engineer to report whether he knows of any further claims of this kind likely to be brought forward.

ENCLOSURE.

From Captain C. B. HENDERSON, R.E., Executive Engineer, Nellore Division, to the Superintending Engineer, II Circle, dated 22nd November 1884, No. 280.

In forwarding, herewith, a verified compensation bill for Rs. 3,151 for loss of produce on land submerged by the waters of the Varigonda tank supplied by Jaffer Saib canal, Pennér anicut system, I have the honor to report that the matter has been in dispute for many years ; there is no doubt that the land is submerged when the tank is full, and that since the tank was first supplied from the anicut in about 1873 the tank has been kept full for so many days that the land submerged cannot be cultivated. I have, however, contended that the land always was submerged, and that nothing was done to the surplus weir to permanently raise its crest.

2. A suit was brought in the local court, and this compensation bill is the outcome of a compromise made by the Collector; the original amount claimed was about Rs. 20,000, and but for the careful inquiries of Mr. Lee-Warner, the late Acting Collector, the amount might not have been reduced so much.

3. There are funds available under extensions and improvements,* though I would prefer getting a special grant. I received the bill this day; by the decree of the court the amount was payable on 30th September 1884.

* Minor Original Works, Pennér Anicut System.

No. 188 I.

Submitted to Government.

2. The Government of India has not yet sanctioned the completion estimates of the Pennér anicut system. The lump sum provided for unforeseen works is only Rs. 8,547, and will not, it is thought, admit of the present claim being met from it. It is therefore suggested that the payment of the claim for compensation, which exceeds Rs. 2,500, the ordinary limit of sanction for works under " Revenue Extensions, and Improvements," may, as a special case, be charged to Revenue Account of the system under extensions and improvements, the amount being met from the current year's grant under that head.

CHEPÂK, (Signed) A. S. RUSSELL,
13th December 1884. *for* Chief Engineer for Irrigation.

To the Joint Secretary to Government,
Public Works Department, Irrigation Branch.

ORDER—dated 17th December 1884, No. 1137 I., Public Works.

The payment of Rs. 3,151 for compensation for loss of produce on land submerged by the waterspread of the Varigonda tank, supplied by the Jaffer Saib's canal of the Pennér anicut system, is sanctioned, the amount being charged to Revenue Account of the system under " Extensions and Improvements."

2. This sanction has been registered as No. 169 I. of 1884-85.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, II Circle.
" Chief Engineer for Irrigation.
" Examiner, Public Works Accounts.
" Revenue Department.

IRRIGATION.
ACCOUNT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 17th.

Recd. *Encl.*

G.O., 17th Dec. 1884, No. 1137 I.

DECEMBER.

Varigonda Tank

Payment of Rs. 3,151 for compensation for loss of produce on land submerged by the waterspread of the —, sanctioned.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

Read—the following papers :—

From J. W. RUNDALL, Esq., Superintending Engineer, II Circle, to the Chief Engineer for Irrigation, dated Vellatur, 25th September 1884, No. 559 S.G.

1 Detail and abstract estimate for Rs. 4,73,408.
1 Duplicate abstract.
1 Comparative statement.
1 Copy of Executive Engineer's letter.
1 Executive Engineer's report.

I have the honor to forward, herewith, for your approval and the sanction of Government, a revised estimate for the Sangam anicut.

2. I forward also a copy of the letter with which the Executive Engineer has sent in this latest revised estimate.

G.O., No. 205 I. of the 13th February 1884.

3. It will be seen that the excess over previous sanction is entirely on baling, and an extra sum of Rs. 18,000 is calculated to be required under this head, and the total increase over the last sanction is Rs. 17,890.

4. Of course the cost of baling on a large work like this could not be accurately estimated beforehand, as so many elements of uncertainty are involved.

5. As regards the rough stone, I agree with Captain Campbell that in order to carry out the provisions of the present specification, a very large quantity of stone will have to be quarried and rejected. This would run up the cost of the stone work very much. It is not probable that the velocity of the water passing over the Sangam anicut will exceed 8′ per second, and stones of a much smaller size would be much less likely to be disturbed by this velocity than stones $2\frac{1}{2}'$ deep placed in the Nellore anicut, where the mean velocity with a similar flood will be $11\frac{1}{2}'$ per second, and probably a good deal more at particular points. I would therefore recommend that the specification be amended, and that stones not less than 2′ deep be allowed for the top course. If this is done, I should hope that the present rate for rough stone need not be increased.

6. When Colonel Mullins proposed $2\frac{1}{2}'$ stones, the Sangam quarry appeared much better than it has since turned out, and it was supposed that stones of this size could easily be procured. Whereas it is now more difficult to get large stones at Sangam than at the Nellore quarries.

7. I have added the laterite coping to the estimate. The south wing needs a finish, and the cost is insignificant compared with that of the whole work.

8. As regards Captain Campbell's paragraph 5, I think it would be a mistake to keep the estimate open for five or even three years, and therefore it would be better to estimate only for the stone now put in ; any addition to be done on estimates sanctioned from "unforeseen works." The extra apron should form a charge against "Capital" and not against "Repairs" as proposed by the Executive Engineer. The general estimate will not be closed within the next five years, and there will, I should hope, be money available for the additional apron should 2′ depth prove insufficient.

9. If you approve of the rear apron being estimated 2' in thickness, please correct the estimate or return it to me for correction.

Memorandum to the Superintending Engineer, II Circle, dated 20th October 1884, No. II/62 N.L.

With reference to letter No. 559 S.G., dated 25th September 1884, received from the Superintending Engineer, II Circle, the undersigned has the honor to state that the Superintending Engineer's proposal to estimate for the rear apron of the Sangam anicut to only 2′ thick for the present, a supplemental estimate for raising it being submitted for sanction from lump sum provision for unforeseen works later on if necessary, is approved, and the revised estimate for the Sangam anicut is herewith returned with a request that it may be altered accordingly and re-submitted as soon as possible.

From J. W. RUNDALL, Esq., Superintending Engineer, II Circle, to the Chief Engineer for Irrigation, dated Masulipatam, 20th November 1884, No. 732 S.G.

I have the honor to re-transmit the revised estimate for the Sangam anicut, now amounting to Rs. 4,73,370, the provision for apron having been altered in accordance with the instructions contained in your memorandum No. 62 N.L. of the 20th ultimo.

1 Detailed and abstract estimate.
1 Comparative statement.
1 Duplicate abstract.

2. This estimate was fully reported on in my No. 559 S.G. of the 25th September, and the only point now required to be noticed is, that the rate for rough stone apron has been somewhat increased, which absorbs the saving obtained by reducing the thickness of the rear apron. This increase of rate is, I think, advisable considering the large quantity of useless material which has to be removed from the quarries to obtain good stone.

3. I would also observe that you have not passed orders on paragraph 5 of my letter above quoted. Please state whether you approve of the amendment of the specification so that stones 2 feet deep can be used for the top course. I do not think it will be possible, except at a much greater expense, to exclude stone less than 2½ feet, and stones 2 feet in their least dimension should be quite safe at the anticipated velocity.

No. 189 I.

Submitted to Government.

2. The revised estimate, amounting to Rs. 4,73,370, for constructing an anicut across the Pennér at Sangam is recommended for sanction, the excess over the estimate sanctioned in G.O., No. 205 I., dated 19th February 1884, being met from the amount available for unforeseen works.

3. In the circumstances reported by the Superintending Engineer, his proposal to amend the specification, so as to allow of stones not less than 2 feet deep being used for the top course of the anicut, is approved.

CHEPÂK,
13th December 1884.

(Signed) A. S. RUSSELL,
for Chief Engineer for Irrigation.

To the Joint Secretary to Government,
Public Works Department, Irrigation Branch.

ORDER—dated 17th December 1884, No. 1138 I., Public Works.

The following revised estimate, amounting to Rs. 4,73,370, for constructing an anicut across the Pennér at Sangam, is sanctioned in supersession of the estimate sanctioned in G.O., No. 205 I., dated 19th February 1884, the excess, Rs. 17,852,

being met from the balance of the lump sum provision in the project estimate for unforeseen works, which will then be reduced to Rs. 79,134.

N. Productive Public Works.
Capital Account.
51. Irrigation and Navigation.
I. Works.
(1) Head Works.
C. Works.

	RS.
Anicut across the Pennér at Sangam, Estimate	4,73,370

2. This sanction has been registered as No. 170 I. of 1884-85.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, II Circle, with three enclosures.
" Chief Engineer for Irrigation.
" Examiner, Public Works Accounts, with duplicate abstract estimate.
" Revenue Department.

IRRIGATION.
ACCOUNT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 17th.

Recd. *Encl.*

G.O., 17th Dec. 1884, No. 1138 I.

DECEMBER.

Anicut across the Penner at Sangam

Revised estimate for an —, sanctioned.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

Read—the following letter from J. W. RUNDALL, Esq., Superintending Engineer, II Circle, to the Chief Engineer for Irrigation, dated Sangam, 6th December 1884, No. 757 N. :—

I have the honor to forward, herewith, a revised estimate, amounting to Rs. 7,730, for the complete repair and improvements of the Chillakur tank, for which estimates, amounting to Rs. 5,390, were sanctioned in G.O., No. 45 I., of the 17th January 1884.

1 General abstract for original works.
1 Duplicate abstract for do.
1 Comparative statement for do.
1 do. do. for repairs.
1 General abstract for repairs.
1 Executive Engineer's report.
1 Superintending Engineer's report.

2. The cause of the excess is explained in the accompanying reports and comparative statements.

Enclosure.

Report on revised estimate for the Chillakur tank improvements, Gúdúr taluk, Nellore.

1. In G.O., No. 45 I., of the 17th January 1884, estimates as follows were sanctioned for this work.

	RS.
Original works	4,150
Repairs	1,240
Total ...	5,390

2. The Executive Engineer now submits estimates aggregating Rs. 7,730, viz. :—

	RS.
Original works	5,650
Repairs	2,080
Total ...	7,730

3. Part of the excess over previous sanction is due to increase of rates owing to rise of prices consequent on the prosecution of the Cuddapah-Nellore State Railway, but part of the increase is due to errors in the estimate as originally prepared.

4. The alterations made by me on my inspection of the work, on the 31st July, are referred to by the Executive Engineer in the remarks in the comparative statement as the cause of the excess, but the alterations, as reported in my inspection notes under date the 31st July last, were made to avoid the heavy and expensive rock cutting which would be necessary had the southern weir been built as designed.

5. The sum provided in the original estimate was insufficient for excavating the weir foundations even when the length had been reduced, and was quite inadequate for the work necessary to carry out the original design.

6. The rise in rates is unavoidable, and the exact extent to which the railway works would affect prices could not be foreseen.

7. As stated by the Executive Engineer the improvements to the tank and the provision of proper escapes is not a work which could be postponed, and under these circumstances I recommend the revised estimates for sanction.

DUGGIRALA,
7th November 1884.

(Signed) J. W. RUNDALL,
Superintending Engineer, II Circle.

No. 195 I.

Endorsement on the above.

Submitted to Government with a recommendation that, under the explanations afforded by the Superintending Engineer in his report, dated 7th November 1884, the revised estimates, amounting to Rs. 7,730, for improving the Chillakur tank be sanctioned.

CHEPÂK,
17th December 1884.

(Signed) A. S. RUSSELL,
for Chief Engineer for Irrigation.

To the Joint Secretary to Government,
Public Works Department, Irrigation Branch.

ORDER—dated 19th December 1884, No. 1144 I., Public Works.

The following revised estimates, amounting to Rs. 7,730, for improving the Chillakur tank in the Nellore district, are sanctioned in supersession of the estimates sanctioned in G.O., No. 45 I., dated 17th January 1884:—

H. Public Works not classed as Productive.
44. Irrigation and Navigation Works, for which neither Capital nor Revenue Accounts are kept.
Chillakur Tank.
Original Works.

	RS.	
Weir No. 1	2,550	
Do. „ 2	3,100	
		5,650
Repairs.		
Tank	800	
Sluice No. 1	380	
Do. „ 2	900	
		2,080
Total ...		7,730

2. This sanction has been registered as No. 172 I. of 1884-85.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, II Circle, with five enclosures.
„ Chief Engineer for Irrigation.
„ Examiner, Public Works Accounts, with one duplicate abstract estimate.
„ Revenue Department.

IRRIGATION.
ACCOUNT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 19th.

Recd.

Encl.

G.O., 19th Dec. 1884, No. 1144 I.

DECEMBER.

Chillakur Tank

Revised estimates for improving the —, sanctioned.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

Read—the following letter from Colonel H. L. PRENDERGAST, R.E., Superintending Engineer, V Circle, to the Chief Engineer for Irrigation, dated Chepâk, 13th December 1884, No. 3535 :—

With reference to paragraph 6 of your inspection notes, printed in G.O., No. 814 W., dated 25th March 1884, I have the honor to submit, for sanction, an estimate of Rs. 2,020 for constructing two second-class staff boats, for the sub-divisional officers in the Buckingham canal division, on the plan received from the Dowlaishweram workshops. Funds are available from the lump sum of Rs. 15,953 sanctioned under Tools and Plant in G.O., No. 2036 W., dated 18th August 1884.

1 Plan.
1 Estimate in duplicate.

Order—dated 19th December 1884, No. 1145 I., Public Works.

The estimate, amounting to Rs. 2,020, for constructing two second-class staff boats, for the use of the sub-divisional officers of the Buckingham canal division, is sanctioned from the balance of the lump sum provision for tools and plant in the completion estimates of the Buckingham canal. The balance still available under this head is Rs. 45,069.

2. This sanction has been registered as No. 171 I. of 1884-85, and classified as shown below :—

H. Public Works not classed as Productive.
Provincial.
44. Irrigation and Navigation Works for which Capital and Revenue Accounts are kept.
Capital Account.
Tools and Plant.
New Supplies.

	RS.
Constructing two second-class staff boats, at Rs. 1,010 each, Estimate	2,020

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, V Circle, with two enclosures.
" Chief Engineer for Irrigation.
" Examiner, Public Works Accounts, with duplicate abstract estimate.
" Revenue Department.

IRRIGATION.
ACCOUNT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 19th.

Recd. *Encl.*

G.O., 19th Dec. 1884, No. 1145 I.

DECEMBER.

Boats

Estimate for two second-class staff —, for use of the sub-divisional officers of the Buckingham canal division, sanctioned.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

Read—the following paper :—

Office note from the Examiner of Public Works Accounts, dated 16th December 1884, No. 688.

As sanction to the allotment referred to in paragraph 2 of G.O., No. 1056 I., dated the 24th November 1884, has not yet been communicated to this office, I shall be obliged by your informing me whether the letter of credit for Rs. 10,000, applied for by the Superintendent, Dowlaishweram Workshops, for the month of January 1885, may be granted.

Order—dated 19th December 1884, No. 1146 I., Public Works.

The Examiner of Public Works Accounts is authorised to pass the application for letter of credit, received from the Executive Engineer in charge of the Dowlaishweram Workshops, for Rs. 10,000, required for expenditure during the month of January 1885 in anticipation of allotment of funds, which will be made shortly.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, I Circle.
„ Chief Engineer for Irrigation.
„ Examiner, Public Works Accounts.

IRRIGATION.
ACCOUNT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 19th.

Recd. *Encl.*

G.O., 19th Dec. 1884, No. 1146 I.

DECEMBER.

Dowlaishweram Workshops

The Examiner, Public Works Accounts, to pass the application for Rs. 10,000 for expenditure during January 1885.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

Account.

READ—the following letter from Lieutenant-Colonel P. MONTGOMERIE, R.E., Superintending Engineer, I Circle, to the Chief Engineer for Irrigation, dated Dowlaishweram, 2nd December 1884, No. 479 G.N :—

I have the honor to submit herewith, for sanction and the provision of funds under Tools and Plant Provincial, an estimate,* amounting to Rs. 1,265, for a hand dredger for the Chilka lake canal, Ganjam division.

* In duplicate.

2. The hand dredger for which the estimate is now submitted has already been made in the Government Workshops, Dowlaishweram, on the sanction given in G.O., No. 1014 I., dated the 16th December 1882, and sent to the Ganjam division.

3. It will be observed from the estimate that the cost of the dredger, exclusive of the cost of carriage, &c., is Rs. 948, that is, Rs. 163 more than the amount of Rs. 785 sanctioned in the Government Order quoted above. This difference, the workshop officer says, represents the value of four spud gearings made under the orders of the late Superintending Engineer, though they were not included in the sanctioned estimate.

4. Please see your Note, No. 47 I., of the 6th March 1884, printed with G.O., No. 329 I., of the 24th idem, regarding the above dredger.

No. 193 I.

Submitted to Government.

2. In G.O., No. 1014 I., dated 16th December 1882, the construction of a hand dredger, at an estimated cost of Rs. 785, was sanctioned. The cost of the dredger, together with that of four spud gearings, which the Superintending Engineer reports have already been made, amounts to Rs. 1,265. The dredger has been transferred to the Chilka lake canal, though originally intended for use in the Godávari Delta, and the Superintending Engineer, I Circle, therefore submits the present estimate, which is recommended for the sanction of Government.

CHEPAK,
15th December 1884.

(Signed) A. S. RUSSELL,
for Chief Engineer for Irrigation.

To the Joint Secretary to Government,
Public Works Department, Irrigation Branch.

ORDER—dated 20th December 1884, No. 1147 I., Public Works.

The estimate for a hand dredger, for the Chilka lake canal in the Ganjam district, is sanctioned, and Rs. 1,265 (the amount of the estimate) are appropriated by transfer from the existing allotment for deepening the canal as shown in the margin.

	RS.
* Works	1,028
Establishment	237
Total ...	1,265

2. This sanction has been registered as No. 173 I. of 1884-85, and classified as shown below:—

H. Public Works not classed as Productive.

Provincial.

44. Irrigation and Navigation Works for which Capital and Revenue Accounts are kept.

III. Tools and Plant.

12. Miscellaneous.

Ganjam Division.

Chilka Lake Canal.

		RS.
Hand dredger, Estimate	... ...	1,265

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, I Circle, with estimate.
,, Chief Engineer for Irrigation.
,, Examiner, Public Works Accounts, with duplicate abstract estimate.

IRRIGATION.
ACCOUNT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 20th.

Recd. *Encl.*

G.O., 20th Dec. 1884, No. 1147 I.

DECEMBER.

Hand Dredger

Estimate for a — for the Chilka lake canal, sanctioned.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

READ—the following letter from J. W. RUNDALL, Esq., Superintending Engineer, II Circle, to the Chief Engineer for Irrigation, dated Sangam, 6th December 1884, No. 753 S.G. :—

I have the honor, with reference to paragraph 4 of my No. 664 S.G., of the 30th ultimo, to report that I learn from the Executive Engineer, Sangam Project Division, that the country leather belting which proved unsatisfactory was obtained from the Tangrah Tannery, Cawnpore, through the Superintendent, Public Works Workshops, Madras. It was called double ply, but consisted of three thickness of leather ; it was leather stitched with copper rivets at the joints. It was 8 inches broad and cost Rs. 2-2-3 per foot run.

2. The English belting was also 8 inches broad, was double ply, stitched with copper wire, was fastened with copper rivets at the joints. Its cost was Rs. 3-0-1 per foot.

3. Thus, though the English belting was $\frac{1}{3}$ dearer, it was really a better article and thus cheaper in the end.

ORDER—dated 20th December 1884, No. 1148 I., Public Works.

Recorded in continuation of G.O., No. 1041 I., of 19th November 1884.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, II Circle.
" Chief Engineer for Irrigation.
" Examiner, Public Works Accounts.

IRRIGATION.

Govt. of Madras. (1884)

PUBLIC WORKS.

Dated December, 20th.

Recd. *Encl.*

G.O., 20th Dec. 1884, No. 1148 I.

DECEMBER.

English Leather Belting

Report of the Superintending Engineer, II Circle, regarding the — supplied to the Sangam Project Division, recorded.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

READ—the following letter from R. B. BUCKLEY, Esq., Officiating Under Secretary to the Government of India, Public Works Department (Civil Works—Irrigation), to the Secretary to the Government of Madras, Public Works Department, dated Fort William, 9th December 1884, No. 316 I. :—

With reference to your letter, No. 944 I., dated 20th October 1884, I am directed to state that, probably by the end of February next, copies of Mr. R. G. Kennedy's Velocity Diagrams will be ready and deposited by Mr. Kennedy in the Roorkee Book Depôt, care of the Principal, Thomason College, to whom you should apply direct for the copies you require.

ORDER—dated 20th December 1884, No. 1149 I., Public Works.

Recorded.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Chief Engineer for Irrigation.
" Examiner, Public Works Accounts.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 20th.

Recd. *Encl.*

G.O., 20th Dec. 1884, No. 1149 I.

DECEMBER.

Velocity Diagrams

Letter from the Government of India stating that application for Kennedy's — should be made to the Principal, Thomason College, for copies of —, recorded.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

Read—the following papers :—

Endorsement by the Director of Revenue Settlement and Agriculture, dated 14th November 1884, No. 2318.

Memorandum to the Superintending Engineer, V Circle, dated 20th November 1884, No. 1898 C.

From Colonel H. L. PRENDERGAST, R.E., Superintending Engineer, V Circle, to the Chief Engineer for Irrigation, dated Chepâk, 1st December 1884, No. 3347.

In returning the enclosures of your memorandum, No. 1898 C., dated 20th ultimo, I have the honor to report that the Munneru river, which joins the Buckingham canal in the 160th mile near the village of Karedu, came down in flood on the 20th and 21st October, and silted up the canal from the river to the 159th mile stone, a length of over half a mile.

2. As soon as the weather permitted work was begun towards opening out a passage through the shoal, but rain commenced again. On the 4th November the river began to rise, and from the 5th to 11th the water was at a height that enabled boats to pass over the obstructed portion. On the 13th the floods having subsided, a cut through the shoal was commenced, and on the 15th, when Assistant Engineer Mr. Wilson left the work in charge of Sub-Engineer, Mr. Bond, good progress had been made. It is, however, to be feared that the cut must have been filled up again by the heavy rain and storm of the night of the 20th ultimo.

3. Messrs. Gill, Deane and Company must know by this time that, until the flood gates have been put up, obstructions in the canal are to be expected, and that those concerned must take their measures for making use of the canal accordingly.

From the Director of Revenue Settlement and Agriculture, dated 19th Nov. 1884, No. 2337.

From the same officer, dated 22nd November 1884, No. 2366.

From J. W. RUNDALL, Esq., Superintending Engineer, II Circle, to the Chief Engineer for Irrigation, dated 1st December 1884, No. 2195 K.S.

In forwarding, herewith, copy of a letter received from the Executive Engineer, Kistna Eastern division, I have the honor to suggest that instructions be given to the Executive Engineer, Buckingham canal, to intimate by telegraph to the Anicut Superintendent at Bezváda whenever the Buckingham canal is blocked and when traffic is again restored.

2. If traffic on this canal is to be developed, it is certainly necessary that early information should be available to intending passengers or shippers regarding the state of the canal.

3. Copies of any telegrams regarding the state of the canal received by the Anicut Superintendent will be posted for public information at Bezváda and Sitanagaram.

ENCLOSURE.

From J. D. GRANT, Esq., Executive Engineer, Kistna Eastern Division, to the Superintending Engineer, II Circle, dated Kistna, 25th November 1884, No. 3709.

I have the honor to report that considerable inconvenience arises here from uncertainty as to the condition of the Buckingham canal which is liable to be blocked by rain, of which we have no knowledge.

2. In November 1880 I requested the Executive Engineer, Buckingham canal, to inform me by telegram of any interruption of navigation, so that I might be able to give notice to the public, and he replied that he would do so.

3. On the 28th ultimo, in consequence of rumours being current that the Buckingham canal was impassable at one point, I telegraphed for information to the Executive Engineer, and immediately received in reply the following telegram: "Not aware any block canal communication." Up to date, however, the boat-owners insist that boats cannot go to Madras, and notwithstanding the Executive Engineer's telegram, I feel certain that there must be some truth in the popular belief, and I would beg to suggest that the Buckingham Canal Executive Engineer be directed at once to notify, by telegraph, to the Anicut Superintendent here every interruption, mentioning the date on which he anticipates that communication will be restored.

No. 191 I.

Note by the Chief Engineer for Irrigation.

During the recent heavy rains, when all the rivers flowing towards the East Coast were in flood, it was only to be expected that the traffic on the Buckingham canal would be delayed. As has already been frequently explained, the canal, in its present incomplete state, cannot be kept open for navigation during bad weather.

2. The proposal of the Superintending Engineer, II Circle, that telegraphic communication, of any block in the canal, should be sent by the Executive Engineer, Buckingham canal, to the Anicut Superintendent at Bezváda, so that the news may be posted for the general information of the public, is approved. It would be well that the Superintending Engineer, V Circle, should arrange a system by which telegrams can at once, on the occurrence of any obstacle to traffic, be sent by the Executive Engineer, or Sub-divisional officers of the canal, to certain stations, of which Bezváda should be one, and that a notification should issue in the Fort St. George and District Gazettes, informing the public that official notices will be posted at such stations whenever the canal is blocked, and when through traffic is again restored.

CHEPÂK,
15th December 1884.

(Signed) A. S. RUSSELL,
for Chief Engineer for Irrigation.

To the Joint Secretary to Government,
Public Works Department, Irrigation Branch.

ORDER—dated 20th December 1884, No. 1153 I., Public Works.

The Government approves of the recommendations contained in paragraph 2 of the Note by the Chief Engineer for Irrigation. The Superintending Engineer, V Circle, will draw up, and forward for approval, a careful scheme by which early notice can be given to the public, at certain specified stations, of the state of the Buckingham canal, whenever navigation is temporarily stopped.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, II Circle.
" " " V "
" Chief Engineer for Irrigation.
" Revenue Department.

IRRIGATION.

Govt. of 1884 Madras.

PUBLIC WORKS.

Dated December, 20th.

Recd. *Encl.*

G.O., 20th Dec. 1884, No. 1153 I.

DECEMBER.

Buckingham Canal

Orders on Note by the Chief Engineer for Irrigation on letter from the Superintending Engineer regarding traffic on the —.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

Read—the following papers:—

From Lieutenant-Colonel A. FILGATE, R.E., Deputy Secretary to the Government of India, Public Works Department (Account—Irrigation), to the Secretary to the Government of Madras, Public Works Department, dated Fort William, 5th December 1884, No. 126 A.I.

I am directed to ask whether the requirements for the Madras Presidency under H-44, Expenditure on Irrigation from Ordinary Funds, during current year will be fully met by the grants now at the disposal of the Government of Madras aggregating Rs. 24,07,900, or whether, in the event of further funds being available, a larger expenditure could be advantageously incurred. Any further increase would however, I am to explain, be of no great magnitude.

Telegram to the Superintending Engineers, I, II, III, IV, and VI Circles, dated 10th December 1884.

Telegram from the Superintending Engineer,	III	Circle, dated	12th	Dec. 1884, No.	——
„ „ „ „	IV	„ „	12th	„ „ „	——
„ „ „ „	VI	„ „	11th	„ „ „	——
„ „ „ „	I	„ „	13th	„ „ „	——
„ „ „ „	II	„ „	15th	„ „ „	——
„ „ „ „	V	„ „	11th	„ „ „	29-V.
Memorandum to the „ „	V	„ „	12th	„ „ „	3511.
Letter from the „ „					

No. 196 I.

Note by the Chief Engineer for Irrigation.

The additional allotments applied for by Superintending Engineers in their third applications for modifications of allotments under "44, Irrigation and Navigation," exceeded by far the total amount of surrenders reported, owing to numerous irrigation works in the southern districts being seriously damaged by the recent heavy rains and to the existing allotments being found to be insufficient for completing the works in hand. As there are no funds available in reserve, and as the existing allotments do not admit of reduction to meet the large demands, the submission of an application to the Government of India has become a necessity.

2. The Government of India having inquired in their letter, No. 126-A.I., dated 5th December 1884, whether, in the event of further funds being made available under "44, Irrigation and Navigation," a larger expenditure could be advantageously incurred, telegrams were sent to the Superintending Engineers, I, II, III, IV and VI Circles, asking them to wire the amounts absolutely required for expenditure, while the Superintending Engineer, V Circle, was requested to state if the amounts applied

for in his third application could be fully utilized in addition to the large balances of the existing allotments.

3. The accompanying statement marked A, prepared from the replies received from the Superintending Engineers, shows that the total requirements amount to Rs. 1,10,176 as shown below:—

—	Original Works.	Repairs.	Total.
Irrigation and Navigation Works for which Capital and Revenue Accounts are kept.	RS.	RS.	RS.
Revenue Account.			
Pálár Anicut System	1,000	3,000	4,000
Chembrambakam Tank	1,200	1,500	2,700
Total ...	2,200	4,500	6,700
Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept.	23,026	46,000	69,026
Agricultural Works	2,750	31,700	34,450
Total ...	27,976	82,200	1,10,176

The reasons assigned for applying for additional allotments are given briefly in the column of remarks in the statement.

4. The amount of Rs. 5,000 applied for by the Superintending Engineer, VI Circle, for closing breaches in tanks in the Madura division has been omitted in this statement, as it has already been sanctioned in G.O., No. 1134 I., dated 16th December 1884, by transfer of the amount surrendered from the ordinary grant for the Trichinopoly division. As the Superintending Engineer has now applied for Rs. 5,000 for this latter division for repairing damages, the amount has been included in the statement.

5. The amount applied for for expenditure on the Thorigedda Vagu outfall sluice in the Godávari Eastern division indicates that the expenditure will exceed the sanctioned estimate. As the work should be completed before the next freshes occur in the Godávari river, the allotment is recommended in anticipation of sanction to the revised estimate, which the Superintending Engineer, I Circle, should submit without delay.

6. The total sum surrendered by Superintending Engineers and now available to meet in part the demands made amounts to Rs. 13,484, as shown below, leaving Rs. 96,692 still to be provided:—

—	Original Works.	Repairs.	Total.
	RS.	RS.	RS.
Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept	8,296	2,300	10,596
Agricultural Works	2,538	350	2,888
Total ...	10,834	2,650	13,484

The particulars of the surrenders are shown in the accompanying statement marked B. The balance to be provided under Agricultural Original Works, viz., Rs. 212, being small, can be met from the existing grant for Agricultural Minor Original Works in the Godávari Western Division. The amount applied for minor original works in the Godávari Eastern Division may be reduced from Rs. 2,000 to

Rs. 1,962, in order to make the total amount required under "44, Irrigation and Navigation," a round sum.

7. It is observed that the expenditure incurred on minor original works, under Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept, in the Trichinopoly and Madura Divisions has exceeded the existing allotment. The Superintending Engineer, VI Circle, should suggest transfers of funds from the grants for other divisions in his circle to cover the excess expenditure.

8. In the revised estimate of irrigation revenue received from the Director of Revenue Settlement and Agriculture, the revenue due to old irrigation under Productive Public Works is estimated at Rs. 59,000 more than the budget estimate, owing to the revenue expected from the old irrigation under the Sangam anicut project having been included. The charge for establishment, at 6 per cent. on indirect revenue, should therefore be increased by Rs. 3,540.

9. The total amount required, including charges for establishment at the fixed rates of percentage on revenue and expenditure and for tools and plant at 1 per cent. on expenditure, is Rs. 1,24,000 as shown below :—

—	Original Works.	Repairs.	Establishment.	Tools and Plant.	Total.
	RS.	RS.	RS.	RS.	RS.
Irrigation and Navigation Works for which Capital and Revenue Accounts are kept—					
Revenue Account—					
Pálár Anicut System	1,000	3,000	920	...	4,920
Chembrambakam Tank System	1,200	1,500	621	...	3,321
Total ...	2,200	4,500	1,541	...	8,241
Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept	14,688	43,700	*17,969	†528	76,885
Agricultural Works	...	31,350	7,210	314	38,874
Grand Total ...	16,888	79,550	26,720	842	1,24,000

Of this amount, Rs. 45,245 are required for repairing damages caused to Irrigation and Agricultural works during the recent heavy rains, and the balance is required for carrying out works in hand. It is suggested that the Government of India may be requested to sanction the additional allotment of Rs. 1,24,000 under "44, Irrigation and Navigation."

10. The expenditure incurred on repairs in the No. 1 tank division to the end of November 1884 amounted to Rs. 14,802 against a grant of Rs. 8,467. It is recommended that Rs. 6,335 may be transferred from the amount provided for for establishment to that for repairs, to meet the excess outlay, as there will be savings under the former head.

(Signed) J. O. HASTED, Col., R.E.,
Chief Engineer for Irrigation.

Chepâk,
19th December 1884.

To the Joint Secretary to Government, Public Works Department.

	RS.
* 23 per cent. on expenditure	13,429
6 ,, on indirect revenue	3,540
Short provision in transfers previously made	1,000
Total ..	17,969
† 1 per cent. on expenditure	584
Deduct excess amount provided in transfer previously made	56
Balance ..	528

ENCLOSURE.

A.—STATEMENT showing the Additional Allotments applied for for Expenditure on Irrigation and Navigation and Agricultural Works during 1884-85.

Division.	Works.	Amount applied for.	Total.	Remarks.
	IRRIGATION AND NAVIGATION WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT.	RS.	RS.	
	Pálár Anicut System.			
North Arcot ...	Extensions and Improvements.	1,000		Required to complete the works in hand.
	Maintenance and Repairs...	3,000		Do. do. do.
			4,000	
	Chembrambakam Tank.			
Chingleput ...	Extensions and Improvements.	1,200		Do. do. do.
	Maintenance and Repairs...	1,500		Required for repairing the damages caused by the recent heavy rains.
			2,700	
	Total ...	...	6,700	
	IRRIGATION AND NAVIGATION WORKS FOR WHICH NEITHER CAPITAL NOR REVENUE ACCOUNTS ARE KEPT.			
	Original Works.			
Coimbatore ...	Chitrachavady channel improvements.	7,000		Work in good progress.
Do. ...	Calingaroyan channel do.	1,526		Required to complete the improvements.
Nellore ...	(Name of work not yet reported).	1,000		Reported to be urgently required.
Godávari Eastern.	Minor original works ...	2,000		Required to carry out works without interruption.
Nellore ...	Do. do. ...	3,000		Reported to be urgently required
North Arcot ...	Do. do. ...	1,500		Required to complete works sanctioned.
Chingleput ...	Do. do. ...	5,000		Required to meet the liabilities incurred.
South Arcot ...	Do. do. ...	2,000		Required to complete works in hand.
			23,026	
	Repairs.			
Godávari Eastern.	Repairs	2,000		Required to carry out works without interruption.
Bellary ...	Do.	8,000		Required to complete works in hand.
Cuddapah ...	Do.	2,000		Required for repairs to Rajimam sluice of the Polimamilla tank.
Coimbatore ...	Do.	2,000		Required to complete works in hand.
North Arcot ...	Do.	10,000		Do. do. do.
South Arcot ...	Do.	15,000		Required for repairing damages caused by the recent heavy rains.
Trichinopoly ...	Do.	5,000		
Tinnevelly ...	Do.	2,000		
			46,000	
	Total ...	...	69,026	

Statement showing the Additional Allotments applied for for Expenditure on Irrigation and Navigation and Agricultural Works during 1884-85—*cont.*

Division.	Works.	Amount applied for.	Total.	Remarks.
	Agricultural Works.	RS.	RS.	
	Original Works.			
Godávari Eastern.	Thorigeddavagu outfall sluice.	2,500		Required to complete the work before the next freshes.
Do. Western.	Minor original works, river conservancy.	250		Required to take a survey of the river above the anicut.
			2,750	
	Repairs.			
Vizagapatam ...	River embankments ...	200		Required for closing breaches.
Godávari Eastern.	River conservancy ...	2,000		Required for nanal plantations below the anicut.
Do. Western.	Do. do. ...	2,000		Required for grass plantations.
Cuddapah ...	Do. do. ...	1,000		Required to complete the works in hand.
Godávari Central	River embankments ...	5,000		Reported to be urgently required.
Do. Western	Do. do. ...	5,000		For repairing embankments and closing breaches.
Chingleput ...	Do. do. ...	2,500		For repairing the embankments of the Pálár river.
South Arcot ...	Do. do. ...	1,000		To complete the works in hand.
Tanjore ...	Do. do. ...	4,000		For closing breaches caused by the recent heavy rains.
Negapatam ...	Do. do. ...	9,000		
			31,700	
	Grand Total ...	...	1,10,176	

B.—Statement showing the Amounts surrendered from the Grants for Irrigation and Navigation and Agricultural Works for 1884-85.

Division.	Works.	Amount surrendered.	Total.	Remarks.
	Irrigation and Navigation works for which neither Capital nor Revenue Accounts are kept.	RS.	RS.	
	Original Works.			
Coimbatore ...	Pullapollem channel improvements.	3,440		Estimates under revision.
Presidency ...	Mylapore tank improvements.	2,667		Completed.
Tinnevelly ...	Valaikulam Periyakulam large tank improvements.	29		Savings not required.
Do. ...	Melakalur tank	200		Do. do.
Do. ...	Watrap-Periyakulam tank improvements.	200		Do. do.
Coimbatore ...	Minor original works ...	1,700		New works cannot be commenced until the north-east monsoon is over.
Barúr ...	Do. do. ...	60		Not required.
			8,296	
	Repairs.			
Barúr ...	.. ...	300		Not required.
Negapatam ...	......	2,000		Estimates not sanctioned.
			2,300	
	Total ...	...	10,596	

Statement showing the Amounts surrendered from the Grants for Irrigation and Navigation and Agricultural Works for 1884-85—*cont.*

Division.	Works.	Amount surrendered.	Total.	Remarks.
	AGRICULTURAL WORKS.	RS.	RS.	
	Original Works.			
	River Embankments.			
Trichinopoly ...	Cauvery right flood-bank improvements.	1,000		Savings under Land Compensation.
Barúr ...	Minor original works, miscellaneous	38		Not required.
Tanjore ...	Minor original works, drainages.	500		Estimates not sanctioned.
Trichinopoly ...	Do. do. ...	1,000	2,538	
	Repairs.			
Cuddapah ...	River embankments ...	350	350	
	Total ...	...	2,888	
	Grand Total ...	...	13,484	

ORDER—dated 22nd December 1884, No. 1154 I., Public Works.

The following transfers of funds are sanctioned :—

From

Original Works.	RS.
Coimbatore Division, Pollapapoliem channel improvements	3,440
Presidency Division, Mylapore tank improvements	2,667
Tinnevelly Division, Valaikulam Periyakulam large tank improvements ...	29
Tinnevelly Division Melakalur tank ...	200
Tinnevelly Division Watrap-Periyakulam tank improvements	200
Coimbatore Division, Minor Original Works	1,700
Barúr Division, Minor Original Works.	60
	8,296

To

Original Works.	RS.
Coimbatore Division, Chitrachavady channel improvements	7,000
Calingaroyen channel improvements	1,296
	8,296

From

Repairs.	
Barúr Division	300
Negapatam Division	2,000
	2,300

To

Repairs.	
Bellary Division	2,300
	2,300

From

Establishment.	
No. 1 Tank Division	3,135
No. 2 Do. do.	3,200
	6,335

To

Repairs.	
No. 1 Tank Division	6,335
	6,335

Agricultural Works.

From	RS.	*To*	RS.
Original Works.		Original Works.	
Major.		Major.	
Trichinopoly Division, Cauvery right bank improvements	1,000	River embankments, Godávari Eastern division, Thorigeddavagu outfall sluice	2,500
Minor Original Works.			
Barúr Division, Miscellaneous ...	38	Godávari Western division, Minor Original Works, river conservancy ...	38
Tanjore Division, drainages	500		
Trichinopoly Division, drainages ...	1,000		
	2,538		2,538
Repairs.		Repairs.	
Cuddapah Division, river embankment.	350	Cuddapah Division, river conservancy.	350

2. The Government of India will be requested to sanction an additional allotment of Rs. 1,24,000 under "44, Irrigation and Navigation," in order to meet the balance of the demands.

3. Ordered that the following telegram be sent to the Government of India :—

"Your letter 126-A. I., dated 5th instant, Rs. 1,24,000 required under 44, Irrigation and Navigation, including Rs. 45,250 for urgent repairs to damages caused by recent heavy rains. Please wire sanction."

4. The following letter will also be sent to the Government of India :—

(Here enter No. 1155 I., dated 22nd December 1884.)

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To Superintending Engineers.
To the Superintendent of Works, Tank Maintenance Scheme.
„ Chief Engineer for Irrigation.
„ Examiner, Public Works Accounts.
„ Revenue Department.
„ Financial „

IRRIGATION.
ACCOUNT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 22nd.

Recd. *Encl.*

G.O., 22nd Dec. 1884, No. 1154 I.

DECEMBER.

Funds

Orders on applications from Superintending Engineers for additional allotments for expenditure on Irrigation, Navigation and Agricultural Works.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

Letter—from

Colonel J. O. HASTED, R.E.,
Joint Secretary to the Government of Madras,
Public Works Department,
Irrigation Branch.

To

The SECRETARY to the GOVERNMENT of INDIA,
Public Works Department,
(*Irrigation*).

Sir,

With reference to your letter, No. 126-A. I., dated 5th instant, I am directed to forward herewith a copy of Proceedings of Madras Government, No. 1154 I., dated 22nd December 1884, and to request that you will be so good as to sanction an additional allotment of Rs. 1,24,000 under "44, Irrigation and Navigation," as requested in my telegram of to-day's date. The amount applied for can be fully utilized with advantage.

I have the honor to be,
Sir,
Your most obedient servant,

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

Fort St. George,
22nd December 1884.

IRRIGATION.
ACCOUNT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 22nd.

Recd. *Encl.*

22nd Dec. 1884, No. 1155 I.

DECEMBER.

Funds

The Government of India requested to sanction an additional allotment of Rs. 1,24,000 for expenditure on Irrigation, Navigation and Agricultural Works.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following letter from W. WILSON, Esq., Director of Revenue Settlement and Agriculture, to the Joint Secretary to Government, Public Works Department, Irrigation Branch, dated Madras, 8th December 1884, No. 143 :—

I have the honor to submit the budget estimate of the Irrigation Revenue of this Presidency for 1885-86.

2. *Class I—Productive Public Works for which Capital and Revenue Accounts are kept.*—According to the budget estimates submitted by Collectors, the revised estimate for the current year 1884-85 amounts to Rs. 61,57,320 and the budget estimate for the ensuing year 1885-86 to Rs. 61,18,755 against the actuals of 1883-84 Rs. 60,19,191 and the sanctioned estimate of the current year Rs. 58,90,000. The average receipts during the past five years, as tabulated in this office, amount to Rs. 59,87,659. The Collectors' estimates exceed this amount by Rs. 1,69,661 for the current year and Rs. 1,31,096 for the ensuing year. The nature of the season in the current year hardly justifies the large increase of Rs. 1,69,661 anticipated by Collectors for this year, and it would not be safe to fix the revised estimate much in excess of the average receipts or of the sanctioned estimate for the current year.

		RS.
Fasli 1289 (1879-80)	... ...	61,84,567
,, 1290 (1880-81)	... ...	59,83,192
,, 1291 (1881-82)	... ...	59,91,723
,, 1292 (1882-83)	... ...	57,59,621
,, 1293 (1883-84)	... ...	60,19,191
Total	...	2,99,38,294
Average	...	59,87,659

In G.O., dated 29th April 1884, No. 427 I., it was intimated that water would become available for irrigation in the current year under some of the completed channels of the Sangam Project, and an estimate of the revenue to be derived from such irrigation was directed to be prepared and included in the current year's budget. The necessary detailed accounts have been obtained from the district and examined in this office; the probable income for the current year, based on these accounts, is estimated at Rs. 30,000, excluding the revenue expected from waste to be brought in. This sum has been included in the budget prepared in this office and now submitted; the Collector's budget omits all credit on this account. Including the receipts from this source, the revenue due to Class I works is estimated at Rs. 60,50,000 for the current year and Rs. 60,80,000 for the ensuing year.

3. *Class II—Irrigation and Navigation Works for which Capital and Revenue Accounts are kept.*—For this class of works the revised estimates of Collectors amount to Rs. 3,42,000 for the current year and Rs. 3,45,000 for the next year against the sanctioned estimate for the current year of Rs. 2,97,000 and Rs. 3,21,484, the actuals of last year (1883-84). In the present breached condition of the Madras water-works no revenue can be expected from them for the current year, and the estimate for all the works under this head cannot safely be fixed at more than Rs. 2,97,000 for the current year and Rs. 3,20,000 for 1885-86.

4. The estimates for each work falling under the above two classes are separately detailed in the budget statement herewith forwarded.

5. *Classes III and IV—Agricultural Works for which Capital and Revenue Accounts are not kept.*—The actuals for 1883-84 for these works amounted to Rs. 89,21,038, and the sanctioned estimate for the current year is Rs. 84,00,000; the revised estimates now furnished by Collectors amount to Rs. 90,56,600; but, considering

the utter failure of the rains in Bellary and Anantapur, the scant fall of rain in other districts in the early part of the year, and the damage done to a large number of irrigation works in the southern districts by the excessive rainfall in the north-east monsoon, the revenue for the current year can hardly be expected to come up to the actuals of 1883-84, which was a good year; the revised estimate is, therefore, entered at Rs. 83,50,000. For 1885-86, assuming that it will prove a tolerably favorable year, the estimate is put at Rs. 87,30,000, that is, Rs. 3,80,000 higher than the revised estimate of the current year.

6. The collection charges have been calculated for the revised budget of the current year and for the budget estimate of 1885-86 at 5 per cent. instead of 7·2 as heretofore in accordance with G.O., dated 16th June 1884, No. 1501 W.

ENCLOSURE.

BUDGET Estimate for the portion of Land Revenue due to Irrigation for Fasli 1295 (1885-86).

—	Actuals for 1883-84.	Budget Estimate for 1884-85.	Revised Estimate for 1884-85.	Budget Estimate for 1885-86.
1	2	3	4	5
REVENUE FROM PRODUCTIVE PUBLIC WORKS.	RS.	RS.	RS.	RS.
PORTION OF LAND REVENUE DUE TO IRRIGATION.				
Godávari Delta.				
Irrigation revenue	16,29,882	16,20,000	16,50,000	16,50,000
Deduct revenue due to old irrigation.	1,23,634	1,30,000	1,25,000	1,25,000
Revenue due to the system	15,06,248	14,90,000	15,25,000	15,25,000
Share of enhanced land revenue ...	1,45,281	1,50,000	1,45,000	1,45,000
Total ..	16,51,529	16,40,000	16,70,000	16,70,000
Deduct collection charges in the civil department	1,18,910	1,18,080	83,500	83,500
Net Revenue ...	15,32,619	15,21,920	15,86,500	15,86,500
Kistna Delta.				
Irrigation revenue	9,72,379	9,00,000	9,50,000	9,50,000
Deduct revenue due to old irrigation.	73,302	76,000	70,000	70,000
Revenue due to the system	8,99,077	8,24,000	8,80,000	8,80,000
Share of enhanced land revenue ...	1,24,958	1,30,000	1,25,000	1,25,000
Total ...	10,24,035	9,54,000	10,05,000	10,05,000
Deduct collection charges in the civil department	73,730	68,688	50,250	50,250
Net Revenue ...	9,50,305	8,85,312	9,54,750	9,54,750
Pennér Anicut.				
Irrigation revenue	2,34,547	2,30,000	2,30,000	2,30,000
Deduct revenue due to old irrigation.	1,19,381	1,20,000	1,20,000	1,20,000
Revenue due to the system	1,15,166	1,10,000	1,10,000	1,10,000
Share of enhanced land revenue ...	14,980	15,000	15,000	15,000
Total ...	1,30,146	1,25,000	1,25,000	1,25,000
Deduct collection charges in the civil department	9,371	9,000	6,250	6,250
Net Revenue ...	1,20,775	1,16,000	1,18,750	1,18,750

Budget Estimate for the portion of Land Revenue, &c.—*cont.*

—	Actuals for 1883-84.	Budget Estimate for 1884-85.	Revised Estimate for 1884-85.	Budget Estimate for 1885-86.
1	2	3	4	5
REVENUE FROM PRODUCTIVE PUBLIC WORKS—*cont.*	RS.	RS.	RS.	RS.
PORTION OF LAND REVENUE DUE TO IRRIGATION—*cont.*				
Sangam Anicut.				
Irrigation revenue	...	...	90,000	* 100,000
Deduct revenue due to old irrigation.	...	...	60,000	60,000
Revenue due to the system	...	...	30,000	40,000
Share of enhanced land revenue ...	...	...	...	2,000
Total	...	...	30,000	42,000
Deduct collection charges in the civil department	...	...	1,500	2,100
Net Revenue ...	...	...	28,500	39,900
Cauvery Delta.				
Irrigation revenue	29,31,551	29,00,000	29,00,000	29,00,000
Deduct revenue due to old irrigation.	23,47,698	23,40,000	23,50,000	23,50,000
Revenue due to the system	5,83,853	5,60,000	5,50,000	5,50,000
Share of enhanced land revenue ...	1,36,852	1,36,000	1,36,000	1,36,000
Total ...	7,20,705	6,96,000	6,86,000	6,86,000
Deduct collection charges in the civil department	51,891	50,112	34,300	34,300
Net Revenue ...	6,68,814	6,45,888	6,51,700	6,51,700
Srivaikuntham Anicut.				
Irrigation revenue	1,82,886	1,70,000	1,60,000	1,80,000
Deduct revenue due to old irrigation	79,452	78,000	78,000	80,000
Revenue due to the system	1,03,434	92,000	82,000	1,00,000
Share of enhanced land revenue ...	2,284	2,000	2,000	2,000
Total ...	1,05,718	94,000	84,000	1,02,000
Deduct collection charges in the civil department	7,612	6,768	4,200	5,100
Net Revenue ...	98,106	87,232	79,800	96,900
Kurnool Canal.				
Irrigation revenue	67,946	70,000	70,000	70,000
Share of enhanced land revenue ...	...	...	...	...
Total ...	67,946	70,000	70,000	70,000
Deduct collection charges in the civil department	4,892	5,040	3,500	3,500
Net Revenue ...	63,054	64,960	66,500	66,500

* Including waste to be brought in.

Budget Estimate for the portion of Land Revenue, &c.—*cont.*

—	Actuals for 1883-84.	Budget Estimate for 1884-85.	Revised Estimate for 1884-85.	Budget Estimate for 1885-86.
1	2	3	4	5
	RS.	RS.	RS.	RS.
REVENUE FROM PRODUCTIVE PUBLIC WORKS—*cont.*				
PORTION OF LAND REVENUE DUE TO IRRIGATION—*cont.*				
Total.				
Irrigation revenue	60,19,191	58,90,000	60,50,000	60,80,000
Deduct revenue due to old irrigation.	27,43,467	27,44,000	28,03,000	28,05,000
Revenue due to the system	32,75,724	31,46,000	32,47,000	32,75,000
Share of enhanced land revenue ...	4,24,355	4,33,000	4,23,000	4,25,000
Total ...	37,00,079	35,79,000	36,70,000	37,00,000
Deduct collection charges in the civil department	2,66,406	2,57,688	1,83,500	1,85,000
Net Revenue ...	34,33,673	33,21,312	34,86,500	35,15,000
IRRIGATION AND NAVIGATION WORKS.				
WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT.				
Chembrambakam Tank.				
Irrigation revenue	54,930	51,000	55,000	55,000
Deduct revenue due to old irrigation.	16,409	16,000	16,000	16,000
Revenue due to the system	38,521	35,000	39,000	39,000
Share of enhanced land revenue ...	680	600	600	600
Total ...	39,201	35,600	39,600	39,600
Deduct collection charges in the civil department	2,822	2,563	1,980	1,980
Net Revenue ...	36,379	33,037	37,620	37,620
Pálár Anicut System.				
Irrigation revenue	2,29,466	2,15,000	2,30,000	2,30,000
Deduct revenue due to old irrigation.	1,13,426	1,13,000	1,13,000	1,13,000
Revenue due to the system	1,16,040	1,02,000	1,17,000	1,17,000
Share of enhanced land revenue ...	14,546	13,500	15,000	15,000
Total ...	1,30,586	1,15,500	1,32,000	1,32,000
Deduct collection charges in the civil department	9,402	8,316	6,600	6,600
Net Revenue ...	1,21,184	1,07,184	1,25,400	1,25,400
Pelandorai Anicut System.				
Irrigation revenue	13,860	10,000	12,000	15,000
Deduct revenue due to old irrigation.	3,178	3,200	3,000	3,000

Budget Estimate for the portion of Land Revenue, &c.—*cont.*

—	Actuals for 1883-84.	Budget Estimate for 1884-85.	Revised Estimate for 1884-85.	Budget Estimate for 1885-86.
1	2	3	4	5
IRRIGATION AND NAVIGATION WORKS—*cont.*	RS.	RS.	RS.	RS.
WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT—*cont.*				
Pelandorai Anicut System—cont.				
Revenue due to the system	10,682	6,800	9,000	12,000
Share of enhanced land revenue ...	100	300	100	100
Total ...	10,782	7,100	9,100	12,100
Deduct collection charges in the civil department	776	511	455	605
Net Revenue ...	10,006	6,589	8,645	11,495
Madras Water-supply and Irrigation Extension Project.				
Irrigation revenue	23,228	21,000	* ...	20,000
Deduct revenue due to old irrigation.	10,617	10,800	10,800	10,000
Revenue due to the system	12,611	10,200	— 10,800	10,000
Share of enhanced land revenue ...	791	400	...	800
Total ...	13,402	10,600	— 10,800	10,800
Deduct collection charges in the civil department	965	763	...	540
Net Revenue ...	12,437	9,837	— 10,800	10,260
Total.				
Irrigation revenue	3,21,484	2,97,000	2,97,000	3,20,000
Deduct revenue due to old irrigation.	1,43,630	1,43,000	1,42,800	1,42,000
Revenue due to the system	1,77,854	1,54,000	1,54,200	1,78,000
Share of enhanced land revenue ...	16,117	14,800	15,700	16,500
Total ...	1,93,971	1,68,800	1,69,900	1,94,500
Deduct collection charges in the civil department	13,965	12,153	9,035	9,725
Net Revenue ...	1,80,006	1,56,647	1,60,865	1,84,775
Total ...	36,13,679	34,77,959	36,47,365	36,99,775
WORKS FOR WHICH NEITHER CAPITAL NOR REVENUE ACCOUNTS ARE KEPT.				
Ganjam	2,77,110	2,65,000	2,75,000	2,75,000
Vizagapatam	1,14,203	1,15,000	1,15,000	1,15,000
Godávari	67,534	75,000	65,000	65,000
Kistna	60,030	1,00,000	60,000	60,000
Nellore	5,52,470	5,10,000	† 4,50,000	† 4,50,000
Cuddapah	7,70,028	6,70,000	7,50,000	7,50,000
Anantapur	3,86,077	3,00,000	2,40,000	3,80,000
Bellary	2,18,496	2,30,000	1,65,000	2,20,000

* Owing to breach of Sholaveram and Red Hills tanks.

† Excluding the portion irrigated under Sangam anicut channels.

Budget Estimate for the portion of Land Revenue, &c.—*cont.*

—	Actuals for 1883-84.	Budget Estimate for 1884-85.	Revised Estimate for 1884-85.	Budget Estimate for 1885-86.
1	2	3	4	5
IRRIGATION AND NAVIGATION WORKS—*cont.*	RS.	RS.	RS.	RS.
WORKS FOR WHICH NEITHER CAPITAL NOR REVENUE ACCOUNTS ARE KEPT—*cont.*				
Kurnool	1,93,663	1,75,000	1,60,000	1,90,000
Chingleput	8,61,437	7,85,000	7,00,000	8,40,000
North Arcot	9,72,392	8,40,000	9,70,000	9,70,000
South Arcot	11,93,441	11,00,000	11,80,000	11,80,000
Tanjore	1,57,193	1,50,000	1,55,000	1,55,000
Trichinopoly	4,14,835	4,00,000	4,10,000	4,10,000
Madura	3,96,346	3,75,000	3,90,000	4,00,000
Tinnevelly	13,31,719	14,00,000	13,20,000	13,20,000
Coimbatore	5,58,588	5,60,000	5,55,000	5,60,000
Salem	3,95,476	3,50,000	3,90,000	3,90,000
Total ...	89,21,038	84,00,000	83,50,000	87,30,000
Deduct collection charges in the civil department	6,42,315	6,04,800	4,17,500	4,36,500
	82,78,723	77,95,200	79,32,500	82,93,500
Total Capital Works ...	36,13,679	34,77,959	36,47,365	36,99,775
	1,18,92,402	1,12,73,159	1,15,79,865	1,19,93,275

(Signed) W. WILSON,
Director of Revenue Settlement and Agriculture.

ORDER—dated 27th December 1884, No. 1160 I., Public Works.

The revised estimate for the current year and the budget estimate for 1885-86 of Irrigation Revenue as drawn up by the Director of Revenue Settlement and Agriculture are approved. The Chief Engineer for Irrigation will adopt the figures shown therein in the preliminary issue of the Irrigation budget estimate for the ensuing year.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To Superintending Engineers.
To the Chief Engineer for Irrigation.
„ Examiner, Public Works Accounts.
„ Revenue Department.

IRRIGATION.
ACCOUNT.

Govt. of (1884) Madras.

PUBLIC WORKS.

Dated December, 27th.

Recd. *Encl.*

G.O., 27th Dec. 1884, No. 1160 I.

DECEMBER.

Irrigation Revenue

Revised estimate for 1884-85 *and the budget estimate for* 1885-86 *of* —. The — submitted by the Director of Revenue Settlement and Agriculture, approved.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

Read—the following paper:—

No. 202 I.

Note by the Chief Engineer for Irrigation.

With a view to enable this office to determine the figures of the revised estimates for the current year for entry in the preliminary issue of the budget estimates for the ensuing year, due with the Government of India on 15th January, Superintending Engineers were requested, in the circular memoranda noted in the margin, to submit their applications for the necessary modifications of allotments so as to reach this office on or before 1st December. The applications from some circles were neither submitted punctually nor were they complete when first submitted. As great inconvenience is caused by such irregularities, Superintending Engineers should take steps to avoid any recurrence of them in future.

No. 14 G., dated 14th April 1883.
No. 36 G., „ 12th Nov. „

2. The accompanying statement, compiled from the applications received from Superintending Engineers, shows the modifications of allotments applied for under the three following heads, together with those proposed for sanction:—

Productive Public Works—Capital Account.
Productive Public Works—Revenue Account.
Protective Works—Irrigation.

The requirements under Public Works not classed as Productive, " 44. Irrigation and Navigation," have already been dealt with in Proceedings of Madras Government, No. 1154 I., dated 22nd December 1884.

3. *Productive Public Works, Capital Account—Godávari Delta.*—The Superintending Engineer, I Circle, has surrendered Rs. 9,600 from the grant for Works in the Godávari Western division as works could not be carried out as vigorously as was anticipated, owing to want of materials in the quarries. Including establishment charges, the surrender will be Rs. 12,124. As shown by the statement of estimated outlay against indents received in England up to the end of September last, the amount entered for the circulating pump indented for for the steamer *Victoria* is £69, against £65 as shown in previous statements. The difference, viz., £4 or Rs. 40 may be allotted under "Tools and Plant" from the amount surrendered, leaving Rs. 12,084 still available. The Superintending Engineer, I Circle, has also, with letter No. 1899, G.O., dated 28th October 1884, submitted a revised estimate, amounting to Rs. 1,40,000,

for expenditure during the current year in the Dowlaishweram workshops, the receipts during the year being Rs. 1,30,000 as shown below:—

	RS.
Profits to be credited to Revenue Account of the delta	5,000
Amount available for expenditure	1,25,000
Total ...	1,30,000

The revised estimate of expenditure is recommended for sanction, and the balance of the amount required, viz., Rs. 15,000 (which represents the estimated increase to the capital of the workshops) may be allotted under Tools and Plant, Capital Account, of the delta. Deducting the amount available by surrenders, the balance still required is Rs. 2,916.

4. *Kistna Delta.*—The Superintending Engineer, II Circle, has surrendered Rs. 9,185 from the grants for Works in the Gudiváda and Kistna Western divisions as there was delay in acquiring land required for the works in the former division, and as very small progress was made in the latter division in the early part of the year when there was no Executive Engineer in charge. Including establishment charges the surrender will be Rs. 11,563.

5. *Sangam Anicut Project.*—In G.O., No. 794 I., dated 2nd September 1884, a sum of Rs. 10,500 was transferred from the grant for land compensation to that for works. The proportionate charge for establishment, amounting to Rs. 2,415, may now be provided.

6. *Kurnool Canal.*—A sum of Rs. 71,153, the value of stores which have been sold, has been credited to the Capital Account of the Kurnool canal during the current year. The amount includes the value of the telegraph line and stores transferred to the Telegraph Department. The probable receipts during the remainder of the current year may be estimated at Rs. 847, making a total of Rs. 72,000, which should be deducted from the estimate of expenditure on Productive Public Works, Capital Account.

7. *Barur Tank Project.*—The Superintending Engineer, IV Circle, has surrendered Rs. 9,690 from the grant for the Barur Tank Project, as the estimates for several works of the project are under revision. The expenditure on this project during the current year to the end of October amounted to Rs. 27,229, against the reduced grant of Rs. 59,310. The Superintending Engineer states that this amount can be fully utilised if works are allowed to be carried out at increased rates in anticipation of sanction to the revised estimates. As such a course of proceeding is objectionable, the Superintending Engineer has been requested to expedite the submission of the revised estimates. In the meanwhile, he should arrange for such works of the project as do not require increased rates being proceeded with vigorously, so that the reduced grant may be fully utilised. Including establishment charges the surrender will be Rs. 11,937.

8. *Cauvery Delta.*—The grant under Works for the Cauvery and Vennar regulators was, in G.O., No. 739 I., dated 15th August 1884, reduced by Rs. 9,620. The proportionate share of establishment charges, viz., Rs. 2,213, should now be deducted.

9. *Srívaikuntham Anicut.*—The Superintending Engineer, VI Circle, has applied for Rs. 800 under Works and has surrendered Rs 268 under Tools and Plant. Including establishment charges, the amount required will be Rs. 716 as shown below:—

	RS.
Works	800
Establishment	184
Total ...	984
Deduct amount surrendered under Tools and Plant	268
	716

10. The total amount to be surrendered to the Government of India under Productive Public Works, Capital Account, will thus be Rs. 91,666 as shown below :—

	Increase.	Reduction.
	RS.	RS.
Godávari delta	2,916	
Kistna delta	...	11,563
Sangam anicut	2,415	
Kurnool canal	...	72,000
Barur tank	...	11,937
Cauvery delta	...	2,213
Srívaikuntham anicut	716	...
Total ...	6,047	97,713
Deduct increase ...	...	6,047
Net reduction ...	...	91,666

11. *Productive Public Works, Revenue Account.*—The Superintending Engineer, I Circle, has applied for Rs. 7,000 for the Godávari delta under Extensions and Improvements, and the Superintending Engineer, VI Circle, has surrendered Rs. 802 from the grant for the Cauvery delta under the same head. For closing breaches in the Korampollem tank, connected with the Srivaikuntham anicut system, the Superintending Engineer, VI Circle, originally applied for Rs. 10,000 under Maintenance and Repairs, but only Rs. 6,504 * were allotted for want of funds. As the Superintending Engineer, however, subsequently reported that the amount required for expenditure during the current year was only Rs. 5,000, the balance of Rs. 1,504 is thus available for transfer. It is suggested that Rs. 802 from the Cauvery delta and Rs. 1,504 from the Srívaikuntham anicut system, making a total of Rs. 2,306, may be transferred to the Godávari Eastern division under Extensions and Improvements, and that the Superintending Engineer, I Circle, be informed that there are no funds available to meet the balance required for the Godávari Eastern division, as also the amount applied for for the Godávari Western division. The Superintending Engineer, VI Circle, has applied for Rs. 500 for the Tanjore division, and Rs. 5,000 for the Negapatam division, under Maintenance and Repairs. The expenditure under this head to the end of October last in the two divisions compares as follows with the existing grants :—

* *Vide* Proceedings of Madras Government, No. 1134 I., dated 16th December 1884.

	Existing Grant.	Expenditure.
	RS.	RS.
Tanjore	30,500	23,040
Negapatam	30,000	16,859
	60,500	39,899

As there are no funds available to meet the demands, and as no special circumstances necessitating the allotments of additional funds have been reported, the amounts applied for cannot be granted, and expenditure during the remainder of the current year should be so regulated as not to exceed the existing grants.

12. Owing to variations between the revised and budget estimates of direct receipts collected in the Public Works Department and irrigation revenue collected in the Civil Department, the amount provided for establishment, at 10 per cent. on

direct revenue and at 6 per cent. on irrigation revenue, has to be increased by Rs. 3,213 as shown below :—

—	Percentage on Direct Receipts.				Percentage on Irrigation Revenue.				
	Budget Estimate.	Revised Estimate.	Difference.	10 per cent. on the difference.	Budget Estimate.	Revised Estimate.	Difference.	Percentage on the difference.	Total percentage on Direct and Irrigation Revenue.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Godávari delta ..	79,000	84,000	5,000	500	14,90,000	15,25,000	35,000	2,100	2,600
Kistna do. ..	50,200	25,200	— 25,000	— 2,500	8,24,000	8,80,000	56,000	3,360	860
Pennér anicut ..	200	260	60	6	1,10,000	1,10,000	..	..	6
Sangam do. ..	..	..	..	..	..	30,000	30,000	1,800	1,800
Kurnool canal ..	10,000	6,470	— 3,530	2,353	70,000	70,000	..	..	— 353
Cauvery delta ..	8,000	8,500	500	50	5,60,000	5,50,000	— 10,000	— 600	— 550
Srívaikuntham anicut ..	2,000	1,500	— 500	— 50	92,000	82,000	— 10,000	— 600	— 650
Total ..	1,49,400	1,25,930	— 13,470	— 2,347	31,46,000	32,47,000	1,01,000	6,060	3,713
Deduct amount applied for in Proceedings of Madras Government, No. 970 I., dated 29th October 1884, for the Godávari delta ..	..	..	..	500	..	..	..	..	500
Net Total ..	..	..	..	— 2,847	..	..	..	..	3,213

The Superintending Engineer, VI Circle, has surrendered Rs. 206 from the grant for the Srívaikuntham anicut under "Tools and Plant." Deducting this sum, the amount still required to meet the increase for establishment charges is Rs. 3,007, which the Government of India may be requested to sanction as an addition to the existing allotment under Productive Public Works, Revenue Account.

13. *Protective Works, Irrigation.*—The Superintending Engineer, I Circle, has applied for the following modifications of allotments (which will require the sanction of the Government of India) for the Rushikulya Project :—

From	RS.	*To*	RS.
Works	7,318	Tools and Plant	9,000
Establishment	1,682		
	9,000		9,000

The remaining modifications of allotments applied for for the project can be sanctioned by this Government.

CHEPÂK, (Signed) J. O. HASTED, Colonel, R.E.,
22nd December 1884. Chief Engineer for Irrigation.

To the Joint Secretary to Government,
Public Works Department, Irrigation Branch.

ENCLOSURE.

STATEMENT showing the Modifications of Irrigation Allotments for 1884-85.

Division.	Main and Sub Head.	Name of Work.	Existing Grant.	Modifications of Allotments applied for.		Modifications of Allotments proposed.	
				Reduction.	Increase.	Reduction.	Increase.
			RS.	RS.	RS.	RS.	RS.
		PRODUCTIVE PUBLIC WORKS.					
		CAPITAL ACCOUNT.					
		GODAVARI DELTA.					
		Bank Canal.					
Godávari Eastern..	(2) H.	Raju Calwa weir, 29th mile L. B., reconstructing	..	..	800	..	800
	2 I.	Quarters for lock establishment ..	2,125	1,025	..	1,025	..
	2 I.	Thallarevu lock	1,300	950	..	950	..
	2 I.	Do. do. establishment quarters..	..	..	590	..	590
	3 B.	Land compensation	200	200	..	200	..

Statement showing the Modifications of Irrigation Allotments for 1884-85—*cont.*

Division.	Main and Sub Head.	Name of Work.	Existing Grant.	Modifications of Allotments applied for. Reduction.	Modifications of Allotments applied for. Increase.	Modifications of Allotments proposed. Reduction.	Modifications of Allotments proposed. Increase.
			RS.	RS.	RS.	RS.	RS.
		PRODUCTIVE PUBLIC WORKS—*cont.*					
		CAPITAL ACCOUNT—*cont.*					
		Godavari Delta—*cont.*					
		Sámalkót Canal.					
Godávari Eastern—*cont.*	2 I.	Lock establishment quarters	878	..	427	..	427
	3 B.	Land compensation	171	121	..	121	..
	3 C.	Head-sluices	1,969	..	620	..	620
	3 L.	Side channels	..	..	74	..	74
		Mundapett Canal.					
	3 C.	Head-sluices	3,894	150	..	150	..
	3 L.	Side channels	1,100	950	..	950	..
		Coringa Canal.					
	2 I.	Lock establishment quarters	2,440	..	130	..	130
	2 F.	Inlets	1,300	480	..	480	..
	3 L.	Earthwork	1,000	1,000	..	1,000	..
		Tooliabaga Drain.					
	4 C.	Masonry works	3,500	..	400	..	400
	4 L.	Earthwork improvements	7,700	400	..	400	..
		Biccavole Drain.					
	4 B.	Land compensation	..	..	500	..	500
	4 C.	Masonry works	1,400	258	..	258	..
	(1) C.	Bobberlanka under-sluice improvements ..	3,000	..	1,000	..	1,000
		Cocanada Canal.					
	(2) I.	Lock establishment quarters	1,504	..	50	..	50
	(3) C.	Jangaladoddi channel, regulating sluice ..	..	..	270	..	270
	(3) L.	Minor channels	208	..	260	..	260
	(3) O.	Cattle crossings	..	..	113	..	113
		Injeram Canal.					
	(3) B.	Land compensation	..	..	300	..	300
		Total ..	..	5,534	5,534	5,534	5,534
		Gostanaddi and Velpur Canal.					
Godávari Western.	3 L.	Minor channels	2,000	1,000	..	1,000	..
		Velpur Canal.					
	(2) I.	Bhimavaram lock	15,000	5,000	..	5,000	..
	(2) L.	Canal extension	4,000	..	400	..	400
		Bank Canal.					
	(2) H.	Surplus weir into Nakkala	2,000	..	500	..	500
		Narsapur Canal.					
	(2) I.	Lock establishment quarters	1,300	..	500	..	500
		Ellore Canal.					
	(2) H.	Screw gearing shutters to escapes ..	4,250	4,000	..	4,000	..
		Buggeshwaram Drain.					
	(4) L.	Drain improvements	2,500	1,000	..	1,000	..
		Total ..	..	11,000	1,400	11,000	1,400
		Total for Godávari delta ..	..	16,534	6,934	16,534	6,934
		Deduct demand ..	..	6,934	..	6,934	..
		Net surrender ..	..	9,600	..	9,600	..
		Kistna Delta.					
		Head Works.					
Kistna Eastern ..	(1) K.	Bezváda workshops	..	..	3,000	..	3,000
		Ryves' Canal.					
	(2) B.	Land compensation	565	..	145	..	145
		Masulipatam Canal.					
	(2) B.	Land compensation	904	..	67	..	67
		Pulleru Canal.					
	(3) B.	Land compensation	..	..	103	..	103

Statement showing the Modifications of Irrigation Allotments for 1884-85—*cont.*

Division.	Main and Sub Head.	Name of Work.	Existing Grant.	Modifications of Allotments applied for.		Modifications of Allotments proposed.	
				Reduction.	Increase.	Reduction.	Increase.
		PRODUCTIVE PUBLIC WORKS—*cont.*	RS.	RS.	RS.	RS.	RS.
		CAPITAL ACCOUNT—*cont.*					
		KISTNA DELTA—*cont.*					
		Vadlamanad Affluent.					
Kistna Eastern—*cont.*	(4) L.	Excavation	3,000	3,000	..	3,000	..
		Total ..	..	3,000	3,315	3,000	3,315
		Pamarru Canal.					
Gudiváda ..	(2) B.	Land compensation	..	..	19	..	19
		Pulleru Canal.					
	(2) B.	Land compensation	270	..	92	..	92
	(2) G.	Bridge over junction canal	500	500	..	500	..
	(2) L.	Improvements	3,502	..	998	..	998
	(2) O.	Cattle crossings	..	..	1,000	..	1,000
	(3) L.	Gudiváda channel	14,000	..	2,120	..	2,120
	Do.	Do. at 6 miles 60 chains ..	..	..	100	..	100
	(3) B	Do. land compensation ..	60	..	140	..	140
	(3) L.	Bantumilli side channel	2,500	1,050	..	1,050	..
	(3) B.	Do. land compensation	200	..	24	..	24
	(3) C.	Chilkakodu channel head-sluice ..	..	..	300	..	300
	(3) O.	Cattle crossings	1,240	440	..	440	..
		Polraz Canal.					
	(3) C.	Ramaveram channel head-sluice ..	300	100	..	100	..
	Do.	Thandivada do. ..	250	250	..	250	..
	Do.	Minor sluices	2,000	1,000	..	1,000	..
	(3) L.	Thandivada channel	1,400	400	..	400	..
	(3) L.	Ramaveram do.	250	150	..	150	..
	Do.	Chegurukota do.	220	190	..	190	..
	Do.	Seetanapalli do.	3,000	2,000	..	2,000	..
	Do.	Naraseapalem do.	3,400	2,400	..	2,400	..
	3 B.	Compensation for land for Thandivada channel	300	200	..	200	..
	Do.	Land compensation for Ramaveram channel	500	300	..	300	..
		Ryves' Canal.					
	(3) B.	Land compensation for Dusapad channel.	600	..	1,400	..	1,400
	(3) L.	Dusapad channel	5,000	3,000	..	3,000	..
		Bantumilli Canal.					
	(2) I.	Head lock	1,892	..	583	..	583
	Do.	Lock weir at Kamalapuram	..	..	700	..	700
	(2) D.	Supply weir at head improvements ..	1,060	200	..	200	..
	(4) B.	Polraz drain	1,500	..	300	..	300
	(4) L.	Do. do.	6,000	..	500	..	500
	(4) C.	Do. bridges	1,500	1,500	..	1,500	..
	(4) B.	Komaravoli affluent	1,000	500	..	500	..
	(4) L.	Do. do.	4,000	..	1,300	..	1,300
	(4) B.	Chendroyakodu drain	3,000	..	1,000	..	1,000
	(4) L.	Do. do.	3,000	1,000	..	1,000	..
	(4) C.	Do. culvert under Ryves' canal	5,000	..	500	..	500
	(4) B.	Pullavu drain	230	..	400	..	400
	(4) L.	Do. do.	3,000	1,808	..	1,808	..
	(4) B.	Danudi do.	2,500	..	1,300	..	1,300
	Do.	Lingala do.	760	700	..	700	..
	(4) L.	Do. do.	3,000	..	1,000	..	1,000
	(4) L.	Shengaroyapolam drain	..	..	1,000	..	1,000
		Polraz Canal.					
	2 I.	Raising banks	1,000	..	500	..	500
	Do.	Lock at Vinjeram	15,186	960	..	960	..
	Do.	Lock weir at Vinjeram	1,441	..	155	..	155
	(2) L.	Improvements	1,000	..	800	..	800
	(2) B.	Land compensation	1,600	1,338	..	1,338	..
	(2) H.	Outlet into Chinnakormileru	1,830	..	155	..	155
	(2) O.	Cattle ramps	1,000	400	..	400	..
		Total ..	..	20,386	16,386	2,0386	16,386
		Main Canal.					
Kistna W stern ..	(2) B.	Land compensation	..	..	500	..	500
	(2) F.	Inlet on the 4th mile	..	..	476	..	476
	(2) L.	Earthwork	35,000	2,200	..	2,200	..
	(2) O.	Boundary stones	..	..	224	..	224
	(2) H.	Duggerala escape improvements ..	..	..	1,000	..	1,000

Statement showing the Modifications of Irrigation Allotments for 1884-85—*cont.*

Division.	Main and Sub Head.	Name of Work.	Existing Grant.	Modifications of Allotments applied for. Reduction.	Modifications of Allotments applied for. Increase	Modifications of Allotments proposed. Reduction.	Modifications of Allotments proposed. Increase.
			RS.	RS.	RS.	RS.	RS.
		PRODUCTIVE PUBLIC WORKS—*cont.*					
		CAPITAL ACCOUNT—*cont.*					
		KISTNA DELTA—*cont.*					
		Commamur Canal.					
Kistna Western—*cont.*	(2) F.	Firinjidibba inlet	3,000	1,000	..	1,000	..
	Do.	Swerna aqueduct	5,000	1,000	..	1,000	..
	(2) G.	Bridge at Karenshedu	4,000	500	..	500	..
	Do.	Do. on the coast road	6,200	1,700	..	1,700	..
	Do.	Do. on the Inkole road	450	..	350	..	350
	(2) K.	Nallamada rest-house	1,980	180	..	180	..
	(2) L.	Canal improvements	5,000	3,000	..	3,000	..
	(3) L.	Jagerlamudi channel	4,500	1,000	..	1,000	..
	(3) C.	Santaranur side channel head-sluice ..	200	..	100	..	100
		Bank Canal.					
	(2) L.	Canal improvements	3,240	70	..	70	..
		Emileru Drain.					
	(4) L.	Earthwork	4,000	..	500	..	500
		Tungabhadra Drain.					
	Do.	Earthwork	5,000	..	500	..	500
		Romperu Drain.					
	(4) L.	Earthwork	4,000	..	1,000	..	1,000
		Peddapalli Drain.					
	Do.	Earthwork	1,000	..	500	..	500
		Total ..	..	10,650	5,150	10,650	5,150
		Total for Kistna Delta ..	..	34,036	24,851	34,036	24,851
		Deduct increase ..	..	24,851	..	24,851	..
		Net reduction ..	..	9,185	..	9,185	..
		BARUR TANK PROJECT.					
Barur	(1) B.	Land compensation	..	..	950	..	950
	(1) C.	Nedungal anicut	12,500	7,100	..	7,100	..
	Do.	Flood banks	1,000	265	..	265	..
	(1) K.	Office and store sheds	..	..	661	..	661
	(2) D.	Agaram channel head sluice	5,500	3,500	..	3,500	..
	Do.	Nedungal do. do.	843	43	..	43	..
	Do.	Barur tank supply channel head sluice ..	4,500	2,360	..	2,360	..
	(2) L.	Barur do. do. do.	17,600	..	1,660	..	1,660
	(2) N.	Morasamputty tank sluice	440	440	..	440	..
	(2) N.	Barur tank bund	20,065	6,165	..	6,165	..
	Do.	Do. surplus weir	738	38	..	38	..
	Do.	Keelcopam eastern sluice	..	..	2,000	..	2,000
	Do.	Do. western do.	350	50	..	50	..
	(3) L.	Distributary channels	..	..	5,000	..	5,000
		Total ..	..	19,961	10,271	19,961	10,271
		Deduct increase ..	..	10,271	..	10,271	..
		Net reduction ..	..	9,690	..	9,690	..
		SRIVAIKUNTHAM ANICUT PROJECT.					
		Southern Section.					
Tinnevelly ..	(3) L.	Authur channel improvements	1,200	..	800	..	800
	..	Tools and plant	268	268	..	268	..
		Total ..	..	268	800	268	800
		Deduct decrease ..	..	..	268	..	268
		Net increase ..	..	..	532	..	532
		REVENUE ACCOUNT.					
		GODAVARI DELTA.					
Godávari Eastern ..	..	Extensions and improvements	8,000	..	4,000	..	2,346
Do. Western.	..	Do. do.	7,000	..	3,000	..	..
		Total ..	..	..	7,000	..	2,346

Statement showing the Modifications of Irrigation Allotments for 1884-85—*cont.*

Division.	Main and Sub Head.	Name of Work.	Existing Grant.	Modifications of Allotments applied for. Reduction.	Modifications of Allotments applied for. Increase.	Modifications of Allotments proposed. Reduction.	Modifications of Allotments proposed. Increase.
			RS.	RS.	RS.	RS.	RS.
		PRODUCTIVE PUBLIC WORKS—*cont.*					
		REVENUE ACCOUNT—*cont.*					
		CAUVERY DELTA.					
Tanjore ..	..	Extensions and improvements, Nattár head converting bridges into regulators.	4,286	642	..	642	..
Negapatam ..	..	Pandanyaur, Yadear dam and Yarayangudi channel head-sluice improvements	2,495	400	..	400	..
Tanjore	..	Extensions, Minor works	5,100	..	200	..	200
Do.	..	Maintenance and repairs	31,000	..	500	..	..
Negapatam ..	..	Do. do.	30,000	..	5,000	..	..
		Total ..	..	1,042	5,700	1,042	200
		SRIVAIKUNTHAM ANICUT PROJECT.					
Tinnevelly ..	..	Maintenance and repairs	16,504	1,504	..	1,504	..
	..	Tools and plant	206	206	..	206	..
		Total ..	..	1,710	..	1,710	..
		PROTECTIVE WORKS.					
		RUSHIKULYA PROJECT.					
		Mahanadi Section.					
Rushikulya ..	(1) B.	Land compensation	23,000	3,000	..	3,000	..
	(1) C.	Rushikulya reservoir head-sluice ..	2,000	1,000	..	..	..
	(1) C.	Do. channel below weir ..	2,000	1,000	..	..	..
		Rushikulya Section.					
	(1) B.	Land compensation	30,000	..	18,000	..	18,000
	(1) C.	Surada reservoir head-sluice	5,000	1,000	..	..	..
	(1) C.	Do. supply channel	1,000	317	..	..	..
		Rushikulya Canal.					
	(2) B.	Land compensation	30,000	15,000	..	15,000	..
	(2) D.	Head-sluice	5,000	4,000	..	..	..
		Total ..	..	25,317	18,000	18,000	18,000
		Establishment	20,470	1,683	..	..	..
		Tools and plant	15,000	..	9,000	..	..
		Total ..	..	27,000	27,000	18,000	18,000

ORDER—dated 29th December 1884, No. 1161 I., Public Works.

The amount of Rs. 91,666 of the grant under Productive Public Works, Capital Account, will be surrendered to the Government of India, Rs. 72,000 being the estimate of receipts on Capital Account of the Kurnool canal for value of stores sold and stores transferred to the Telegraph department, and the balance Rs. 19,666 not being required for expenditure during the current year.

2. The Government of India will be requested to sanction the following transfers of funds, as also an additional allotment of Rs. 3,007 under Productive Public Works, Revenue Account:—

Productive Public Works, Capital Account.

FROM	RS.	RS.	TO	RS.
Godávari Delta—			Godávari Delta—	
Works	9,600		Tools and Plant	15,040
Establishment	2,524			
		12,124		
Kistna Delta—				
Works	2,371			
Establishment	545			
		2,916		
		15,040		15,040

Protective Works, Irrigation.

FROM	RS.	TO	RS.
Rushikulya Project—		Rushikulya Project—	
Works	7,318	Tools and Plant	9,000
Establishment	1,682		
	9,000		9,000

3. The modifications of allotments shown in the last two columns of the statement, which accompanies the note by the Chief Engineer for Irrigation, are sanctioned.

4. The Superintending Engineer, IV Circle, will expedite the submission of revised estimates for the Barur project, and will arrange for the reduced grant for the project being fully utilized.

5. The attention of the Superintending Engineers is drawn to the necessity for observing strict punctuality in the submission of applications for modifications of allotments. Orders to this effect have already been issued in paragraph 3 of Proceedings of the Madras Government, No. 970 I., dated 29th October 1884.

6. Ordered that the following letter be sent to the Government of India.

(Here enter No. 1162 I., dated 29th December 1884.)

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To Superintending Engineers.
To the Chief Engineer for Irrigation.
" Examiner, Public Works Accounts.
" Revenue Department.

IRRIGATION.
ACCOUNT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 29th.

Recd. *Encl.*

G.O., 29th Dec. 1884, No. 1161 I.

DECEMBER.

Modifications of Irrigation Allotments

Orders on statement showing the — for 1884-85.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

LETTER—from

COLONEL J. O. HASTED, R.E.,

Joint Secretary to the Government of Madras,

Public Works Department, Irrigation Branch,

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,

Public Works Department,

(Irrigation).

SIR,

In forwarding, herewith, a copy of Proceedings of the Madras Government, No. 1161 I., dated 29th December 1884, I am directed to surrender Rs. 91,666 from the grant under Productive Public Works, Capital Account. Of this sum Rs. 72,000 represent the estimate of receipts on Capital Account of the Kurnool canal, for value of stores sold and stores transferred to the Telegraph Department, while the balance of Rs. 19,666 is not required for expenditure during the current year.

2. I am also to request sanction to the modifications of allotments shown in paragraph 2 of the orders herewith forwarded, and to ask that an additional allotment of Rs. 3,007, under Productive Public Works, Revenue Account, may be granted to meet the charges for establishment due to the increase of the revised estimate over the budget estimate of irrigation revenue.

I have the honor to be,

Sir,

Your most obedient servant,

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

CHEPÂK,
29th December 1884.

IRRIGATION.
ACCOUNT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 29th.

Recd. *Encl.*

29th Dec. 1884, No. 1162 I.

DECEMBER.

Modifications of Irrigation Allotments

Applying for sanction to certain —.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

READ—the following telegram from the Executive Engineer, South Arcot Division, Cuddalore, to the Chief Engineer for Irrigation, Madras, dated 27th December 1884.

Two hundred feet Pelandorai anicut gone. Gadilam anicuts injury extended. Wallajah, Perumal and most tanks breached in November gone again worse, besides others.

ORDER—dated 29th December 1884, No. $\frac{1162 \text{ I.}}{\text{A.}}$, Public Works.

The Government regrets to hear of the disastrous accident to the Pelandorai anicut, which has now breached for the third time since its completion in the year 1876.

2. The Chief Engineer for Irrigation will, at an early date, lay a full report before the Government regarding the cause of the breach in the anicut, and the measures to be adopted for its effective restoration.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, V Circle.
" Chief Engineer for Irrigation.
" Revenue Department.

IRRIGATION.

Govt. of (1885) Madras.

PUBLIC WORKS.

Dated December, 29th.

Recd. *Encl.*

G.O., 29th Dec. 1884, No. $\frac{1162\ I.}{A}$

DECEMBER.

Pelandorai Anicut

Orders on telegram from the Executive Engineer, South Arcot Division, reporting breaching of the —.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following telegram from the Secretary to the Government of India, Public Works Department, Calcutta, to the Secretary to the Government of Madras, Public Works Department, dated 24th December 1884 :—

Your 22nd. Additional grant 45,250 under 44, Irrigation, sanctioned. More will be given if possible.

ORDER—dated 30th December 1884, No. 1163 I., Public Works.

Communicated to the officers concerned with reference to G.O., No. 1154 I., dated 22nd December 1884.

2. The additional allotment of Rs. 45,250, sanctioned by the Government of India, is appropriated as follows :—

Irrigation and Navigation Works for which Capital and Revenue Accounts are kept.
Revenue Account.
Chembrambaukam Tank.

		RS.
Maintenance and repairs	1,500	
Establishment	350	
		1,850

Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept.
Repairs.

South Arcot Division	15,000	
Trichinopoly	5,000	
Tinnevelly	2,000	
	22,000	
Establishment	5,060	
Tools and Plant	220	
		27,280

Agricultural Works.
Repairs.
River Embankments.

Tanjore Division	4,000	
Negapatam do.	9,000	
	13,000	
Establishment	2,990	
Tools and Plant	130	
		16,120
Total ...		45,250

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, V Circle.
" " VI "
" Chief Engineer for Irrigation.
" Examiner, Public Works Accounts.
" Revenue Department.

IRRIGATION.
ACCOUNT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 30th.

Recd. *Encl.*

G.O., 30th Dec. 1884, No. 1163 I.

DECEMBER.

Funds

Appropriating certain — sanctioned by the Government of India for repairing the Chembrambaukam tank, &c.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

READ—the following paper :—

G.O., dated 19th December 1884, No. 1413, Revenue.

Read—the following proceedings of the Board of Revenue, dated 10th December 1884, Mis. No. 11705 :—

Read—the following letter from the Collector of Chingleput, to the Secretary to the Board of Revenue, dated 8th December 1884, No. 5931 :—

I have the honor to submit, for the information of the Board of Revenue, a preliminary report upon the damage done in the Ponnéri taluk by the recent cyclone.

2. I, some few days ago, received a hurried report stating that three-fourths of the tanks in the taluk had gone, that very great damage had been done to both houses and crops in the north along the shores of the Pulicat lake, and that there was some personal distress amongst the very poor in the part which had suffered most.

3. Pitchoo Pillay, the deputy tahsildar, whom I had placed in charge, *vice* the deposed acting tahsildar, had, like a sensible man, before writing to me, sent out as many gumastahs and revenue inspectors as were available to inspect and make inquiries, and had, from the money given him for relief purposes at Sholaveram, furnished them with small sums of money to assist any immediate distress.

4. He himself was, at the time, engaged working at the villages under the Sholaveram tank, collecting the information wanted by Government as to the damage done there. I at once wrote to him, giving him instructions as to what to do, called in by telegraph the best revenue inspector from the Chingleput taluk to assist, and directed Pitchoo Pillay to, as soon as he possibly could, go to the north of his taluk and let me know, after examination, the true state of things, and I furnished him with a book of free passes for wood and leaves for issue to the ryots in order that they might be able to get the means of repairing their houses. I further directed him to let me have a list, as soon as he could, of irrigation works damaged. I asked Mr. Pinto to relieve him with the least practicable delay. This had been done before my order was received, as Pitchoo Pillay had, with most creditable celerity, finished his work at Sholaveram in a very short time. I requested Mr. Pritchard to, as soon as the Public Works Department no longer required him, go for a tour through the most injured portions of the taluk and report to me the result of his observations. He left the Red Hills on Friday morning and is now at Gummidipoondy.

5. On receipt of the first report, I wrote to the Executive Engineer and sent a copy of the letter to the Superintending Engineer. I am now addressing the Public Works Department again, sending a copy of the list of Imperial tanks breached.

6. There is altogether a large party out looking into matters, and the Board may be assured that we will all do our best to remedy, as far as is possible, the disaster which has occurred.

7. I have given the tahsildar sufficient funds to meet any actual personal distress which may be found. Free passes will be issued liberally, so as to allow of the ryots settling down again in their houses, and we will do our best to get the irrigation works put right as soon as we can. Nothing more can, I think, be done until the jamabandi. I do not advocate any special measures of relief, such as have been authorised at the Red Hills and Sholaveram. I think that kind of thing unwise, excepting in very special cases. It forms a bad precedent and tends to make the

people sit down and fold their hands in the expectation that the "Circar" will do everything for them.

8. From what I can learn the centre of the cyclone must have struck the shore somewhere about Pulicat and then travelled inland in a westerly direction until it met the Kambakam and Nagalapuram range. There was more rain in it than further south, but the violence of the wind must have been terrific, as it tore not only the roofs off thatched, but off tiled houses also. At Pulicat, report says that, not a tree has been left standing, and, judging from the fact that 2,000 trees on poramboke and waste lands alone are down, the loss of trees must have been enormous. Great damage has been done, so I hear, in our reserved forests, but no detailed reports have as yet come in.

9. The lists which accompany this letter tell a sad tale of the damages done to irrigation works, and these we can hardly hope to be able to make good before the rains are over. This means very heavy loss to both Government and the ryots. Mr. Pritchard, in a demi-official just received, puts the loss of crops in one village (Chinnambedoo, which is a very prosperous one) that he has visited at Rs. 7,000.

10. The Board will observe that 45 Imperial tanks, embracing some, if not all, of the best in the taluk, have seriously breached and that 32 minor irrigation works have gone. There may be something more hereafter to add to these. With the list of damages is another of minor works to be emergently repaired. The revenue involved is Rs. 5,539, and the estimated cost is Rs. 1,739.

11. This, I respectfully submit, is not the time for waiting for estimates, &c., but for prompt action. I have, therefore, taken upon myself the responsibility of ordering the officiating tahsildar to go on with the repairs, sending in estimates as sharp as he can. We may, by this means, save something for Government and the ryots. Delay will entirely prevent this.

12. I have already urged upon the Public Works Department the necessity for not employing the subordinates of this district on the Red Hills or Sholaveram tanks. There is plenty of work for them elsewhere. The Red Hills and Sholaveram tanks should be in the hands of an entirely separate and special staff, and that of this district should be temporarily strengthened. The Madurántakam taluk has suffered severely during the floods which preceded the cyclone, and I have no doubt that I shall soon hear something discouraging from Tiruvallúr. The Revenue officers have not, since the breaching of the Red Hills tank, had time to look about them and ascertain what damage has been done in the Saidápet taluk. Chingleput and Conjeeveram, as far as I have yet learned, have escaped much injury.

13. I consider that, for the present, and until we can ascertain definitely what harm has been occasioned, collections in the Ponnéri taluk should be everywhere stayed. I would have issued orders upon this point also, but once before, when I exercised my own judgment regarding it, I was taken to task, and I therefore hesitate to, upon this occasion, assume any responsibility.

14. I therefore request the favor of very early orders on the subject, stating at the same time that it is the opinion of the divisional officer, in which I coincide, that collections should be stayed. The kists begin on the 10th.

15. They can hereafter be made in such places as, on inquiry, are found not to have suffered to any appreciable degree.

16. The repair of the damages done to the burial-grounds at Pulicat will be attended to as soon as more urgent matters will allow.

17. Orders upon minor points, with which I need not trouble the Board, will go to the officiating tahsildar.

18. I will submit the general report of Mr. Pritchard as soon as it reaches me.

Resolution—dated 10th December 1884, Mis. No. 11705.

Submitted for the information of Government.

2. The Board regret to hear that so much damage was done in Pulicat and its neighbourhood.

3. The Collector is authorised to use his discretion in postponing the December kist where such action is really required.

Order—dated 19th December 1884, Mis. No. 1413, Revenue.

Recorded.

(True Extract.)

(Signed) H. E. STOKES,
Secretary to Government.

To the Public Works Department,
Irrigation Branch, with list of Imperial tanks breached (to be returned).

ENCLOSURE.

List of Tanks breached during the Cyclone in November, Ponnéri Taluk.

Name of villages and irrigation source.			Extent to which the tanks were damaged.	Remarks.
	Imperial Works.			
85	Kaniambakam ... }	Hissa tank ...	3 breaches ... }	Contains 10 or 15 days' water.
83	Devadanam ... }			
211	Eluppakum ...	Tank ...	5 do.	
172	Pakkum ...	Do. ...	2 do.	
188	Sombattu ...	Do. ...	40 do.	Contains 1 month's water.
215	Annamalaichery ...	Do. ...	6 do.	Do. 10 days' water.
247	Selimbedu ...	2 tanks ...	5 do.	
244	Melakalani ...	1 tank ...	2 do.	Contains a very little supply of water.
251	Kallur	Tank ...	2 do.	
129	Vadakkunallur ... {	Do. ...	4 large breaches ...	
		Tangle ...	10 breaches	
220	Perikarumboor ... }	Hissa tank ...	3 do.	
221	Thenambattoo ... }			
167	Pralayambakum .	Tank ...	2 do.	
187	Kilikodi	Do. ..	4 do.	
141	Melamathalambedu .	Do. ...	8 do.	
209	Avur ... ... {	Do. ...	9 do. ... }	Contains 10 days' water.
		Sitteri ...	2 do. ... }	
177	Vembedu	Tank ...	Breached, number not given in the report.	
175	Poovamy ... {	Peria yeri ...	15 breaches ... }	No water in the tanks.
		Sitteri ...	5 do. ... }	
248	Mangodu ...	Hissa tank ..	Breached, number not given in the report.	
42	Vallur	River channel.	2 breaches ...	
127	Chinnambedu ...	Big tank ...	1 large breach ...	The tank was empty, but by raising ring bund 1 month's water was stored in the tank. Requires urgent repair.
99	Kattur	Tank ...	do. ...	Do.
225	Kuruviagaram ..	Do. ...	12 breaches	
132	Palavakum ...	Do. ...	Bund totally washed away	
148	Kanakavallipuram }	Hissa tank ...	1 breach	
151	Goodoovancheri ... }			
240	Elavoor	Big tank ...	1 large breach ...	Contains 10 or 15 days' water.
98	Kadapakum ...	Tank ..	1 breach	
162	Perumbedu ...	Do. ...	1 large breach ...	Nearly 2 months' water was left in the tank. Ring bund raised. Requires urgent repair.

List of Tanks breached during the Cyclone in November, Ponnéri Taluk—*cont.*

	Name of villages and irrigation source.		Extent to which the tanks were damaged.	Remarks.
	Imperial Works —cont.			
100	Thathamanji ...	Tank ...	5 breaches	
250	Vuppunelvoyal ...	Do. ...	10 do.	
138	Manaly ... }	Hissa tank ...	1 breach	
136	Erukavoy ... }			
224	Seganniam ...	Tank ..	10 breaches	
178	Medur	Do. ...	3 do.	Ring bund raised. Requires urgent repair.
183	Arasur	Hissa tank ...	6 do.	
184	Kattavoor	Do. ...	5 do.	
190	Panappakam ...	Tank ...	8 do.	
17	Aroomandai ...	Tangle ...	Breached	
22	Sholavaram ...	Tank ...	2 breaches	
15	Tirunilai ...	Do. ...	1 breach	Ring bund was raised.
33	Boodoor	Do. ...	2 breaches	Do.
34	Nayer	Do. ...	2 do.	Repaired last year, bund miserably worn out for want of turfing.
232	Athupakkum ...	Do. ...	1 breach	
96	Tangelperumbulam.	Do. ...	4 breaches	Inspected by the revenue inspector specially sent. The bed of the tank now contains back-water to a depth of about 1 foot, which is not at all useful for irrigation purposes.

ORDER—dated 30th December 1884, No. 1164 I., Public Works.

Communicated to the Superintending Engineer, V Circle, who will submit an early report regarding the measures necessary to repair the damages to irrigation works in the Ponnéri taluk.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, V Circle,
" Chief Engineer for Irrigation,
" Revenue Department.

IRRIGATIO[illegible]

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated December, 30th.

Recd. *Encl.*

G.O., 30th Dec. 1884, No. 1164 I.

DECEMBER.

Damages to Irrigation Works

Superintending Engineer, V Circle, is directed to submit early report regarding the measures necessary to repair the — in the Ponnéri taluk, Chingleput district.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

TABULAR STATEMENT OF MISCELLANEOUS PROCEEDINGS AND MATTERS OF ROUTINE,

IRRIGATION,

FOR THE MONTH OF DECEMBER 1884.

Subjects.	Number and Date of Order.	Numbers and Dates of previous Orders.
Minor Irrigation Works.—Proceedings of the Board of Revenue on statement of expenditure on — up to August.	1st Dec. 1884, No. 1088 I.	......
Irrigation Works.—Orders in the Revenue Department on Board's Proceedings on progress reports of expenditure on — for July.	2nd do. do. No. 1090 I.	......
Minor Irrigation Works, Nellore District.—Proceedings of the Board of Revenue on list of — requiring repairs during 1885-86.	2nd do. do. No. 1091 I.	......
Minor Irrigation Works, Tanjore District.—Orders in the Revenue Department instructing the Collector to utilise the allotment for the upkeep of —.	3rd do. do No. 1095 I.	19th Sept. 1884, No. 853 I.
Tanks in the Bellary District.—Proceedings of the Board of Revenue sanctioning funds for repair of —.	5th do. do. No. 1099 I.	......
Kuchapuram Tank, Anantapur District.—Proceedings of the Board of Revenue sanctioning funds for repair of —.	5th do. do. No. 1100 I.	15th Feb. 1884, No. 191 I. 16th Aug. 1883, No. 648 I.
Minor Irrigation Works, Salem District.—Proceedings of the Board of Revenue sanctioning funds for repair of —.	5th do. do. No. 1101 I.	23rd July 1884, No. 680 I. 11th July 1884, No. 640 I.
Minor Irrigation Works.—Proceedings of the Board of Revenue on orders in the Revenue Department reviewing statement of expenditure on — for July 1884.	6th do. do. No. 1103 I.	16th Oct. 1884, No. 937 I.
Minor Irrigation Works in Anantapur District.—Orders in the Revenue Department regarding —, communicated to the Superintending Engineer.	9th do. do. No. 1110 I.	......
Red Hills Tank.—Daily report of work at the — on the 6th December, recorded.	11th do. do. No. 1112 I.	......
Do.—Do. do. 8th December, recorded ...	11th do. do. No. 1113 I.	......

Subjects.	Number and Date of Order.	Numbers and D... previous Orders.
Red Hills Tank.—Orders in the Revenue Department on letter from the Collector reporting in connection with the breaching of the —, recorded.	12th Dec. 1884, No. 1114 I.	......
Minor Irrigation Works in the Bellary District.—Proceedings of the Board of Revenue calling for a revised list of — requiring repairs during 1885-86, communicated to the Superintending Engineer.	12th do. do. No. 1115 I.	27th Nov. 1883, No. 963 I. 25th Jan. 1883, No. 71 I.
Minor Irrigation Works, Tinnevelly District.—Proceedings of the Board of Revenue approving list of — requiring repairs during 1885-86, communicated to the Superintending Engineer.	12th do. do. No. 1116 I.	9th May 1884, No. 472 I.
Minor Irrigation Works in the Kistna District.—Proceedings of the Board of Revenue calling for a revised list of — requiring repairs during 1885-86, communicated to the Superintending Engineer.	12th do. do. No. 1117 I.	29th Aug. 1884, No. 786 I.
Minor Irrigation Works, Vizagapatam District.—Proceedings of the Board of Revenue approving list of — requiring repairs during 1885-86, communicated to the Superintending Engineer.	12th do. do. No. 1118 I.	2nd Feb. 1883, No. 99 I.
Do. Kurnool District.—Do. do.	12th do. do. No. 1119 I.	......
Minor Irrigation Works, Anantapur District.—Proceedings of the Board of Revenue on list of — requiring repairs during 1885-86, communicated to the Superintending Engineer.	12th do. do. No. 1120 I.	......
Minor Irrigation Works, North Arcot District.—Proceedings of the Board of Revenue approving list of — requiring repairs during 1885-86, communicated to the Superintending Engineer.	12th do. do. No. 1121 I.	16th Aug. 1883, No. 648 I.
Red Hills Tank.—Orders in the Revenue Department on Collector's proposal to give money grants to the distressed to help in rebuilding their huts washed away by the breaching of the —.	12th do. do. No. 1122 I.	......
Koratur Tank.—Orders in the Revenue Department approving of the measures adopted by the Collector to utilise the water from the — for supply to Madras town, communicated to the Superintending Engineer.	13th do. do. No. 1126 I.	30th June 1876, No. 1650. 2nd Aug. 1882, No. 603 I.
Erratum in G.O., No. 1076 I., dated 27th November 1884, regarding Veeranam tank.	13th do. do. No. 1129 I.	......
Tank beds.—Proceedings in the Revenue Department regarding adjustment of sale proceeds of — in connection with the Sangam Anicut Project, communicated to the Superintending Engineer.	16th do. do. No. 1130 I.	7th Nov. 1884, No. 1001 I. 2nd June 1881, No. 352 I.
Minor Irrigation Works in the Madura District.—Proceedings of the Board of Revenue approving list of — requiring repair during 1885-86, communicated to the officers concerned.	16th do. do. No. 1131 I.	16th Aug. 1883, No. 648 I. 1st Aug. 1883, No. 601 I.
Irrigation Works in the Trichinopoly District.—Proceedings of the Board of Revenue sanctioning funds for repair of damages to —, recorded.	16th do. do. No. 1132 I.	23rd July 1884, No. 680 I. 11th July 1884, No. 640 I.
Red Hills Tank.—Proceedings in the Revenue Department on letter from the Collector reporting in connection with relief operations at the —, recorded.	16th do. do. No. 1133 I.	3rd Nov. 1884, No. 1988 C. 28th Nov. 1884, No. 1079 I.

Subjects.	Number and Date of Order.	Numbers and Dates of previous Orders.
Minor Irrigation Works and Petty Construction and Repairs.—Orders in the Revenue Department on Board's proceedings reviewing expenditure on — during 1883-84, communicated to the Chief Engineer for Irrigation.	17th Dec. 1884, No. 1139 I.	26th Sept. 1883, No. 790 I. 20th Dec. 1882, No. 3362 W. 10th April 1882, No. 327 I.
Repairs to Tanks, &c., in the Chingleput District.—Proceedings of the Board of Revenue sanctioning funds for —.	17th do. do. No. 1140 I.	......
Minor Irrigation Works in the Coimbatore District. Proceedings of the Board of Revenue approving list of — requiring repair during 1885-86, communicated to the Superintending Engineer.	19th do. do. No. 1141 I.	......
Minor Irrigation Works.—Proceedings of the Board of Revenue recording reports of certain Collectors regarding contracts for repairs to —.	19th do. do. No. 1142 I.	14th Oct. 1884, No. 930 I.
Vyasarapady and Spur Tanks.—Proceedings in the Revenue Department on letter from Collector reporting on condition of —, recorded.	19th do. do. No. 1143 I.	......
Tanks in Chingleput District.—Proceedings in the Revenue Department sanctioning funds for repair of —, recorded.	20th do. do. No. 1150 I.	......
Minor Irrigation Works.—Proceedings of the Board of Revenue regarding expenditure on —.	20th do. do. No. 1151 I.	......
Damages in the South Arcot District.—Orders in the Revenue Department on Board's proceedings on Collector's report reporting on the —, communicated to the Superintending Engineer.	20th do. do. No. 1152 I.	17th Nov. 1884, No. 1020 I.
Statement of Objectionable Items in the Accounts of the IV Circle for September 1884.—Orders on —.	22nd do. do. No. 1156 I.	31st Oct. 1884, No. 974 I. 25th Nov 1884, No. 1063 I.
Statement of Objectionable Items in the Accounts of the V Circle for September 1884.—Orders on —.	22nd do. do. No. 1157 I.	25th Nov. 1884, No. 1062 I. 22nd Oct. 1884, No. 948 I. 11th Sept. 1884, No 823 I.
Statement of Objectionable Items in the Accounts of the VI Circle for September 1884.—Orders on —.	22nd do. do. No. 1158 I.	22nd Oct. 1884, No. 951 I. 29th July 1884, No. 690 I. 27th June 1884, No. 606 I.
Statement of Objectionable Items in the Accounts of the III Circle for September 1884.—Orders on —.	22nd do. do. No. 1159 I.	25th Nov. 1884, No. 1060 I. 31st Oct. 1884, No. 973 I.